AMERICAN BEE JOURNAL

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AMERICAN BEE JOURNAL

EDITORS: G. H. CALE, FRANK C. PELLETT, M. G. DADANT, J. C. DADANT

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• NEXT MONTH

A three point discussion of a lively topic—the need for a breeding standard and a production guarantee. Atchison champions the southern breeders, on whose shoulders the improvement of honey producing stock almost entirely rests. Cale sets them by the ears for not going faster; and Bessonet proposes a method.

Editorial Comments

Honey for Cows

An interesting quotation from an Australian paper, "The Western Mail" offers a suggestion for the use of low-grade honey. Wyatt Earp reports the feeding of third grade honey to his cows, at the rate of four ounces per cow per day.

As a result he had healthier animals and an increase in his milk supply. He recommends honey unreservedly to all dairymen with the statement that it appears to be as good for the cows as for humans and adds that he is not connected with beekeeping in any way.

Much low-grade molasses is used in stock food and perhaps a similar outlet might be found for the poorer grades of honey. So little has been done in the way of cultivating such outlets for honey that it would seem a far reaching study of all such uses might well be made.

This particular market could only be expected to use a poor grade honey at a very low price but it is this same poor honey which often depresses the market for the better grades, and its removal from competition would have a good effect.

♦

Cultivating Special Demand

For years there has been constant agitation of the question of better grading of honey. Always we are told of cases where buyers have been duped with honey of poor quality and the market injured as a result. Since the bees do not prepare a product of uniform quality it is very difficult for the merchant to offer his customer honey which is always like that with which he has been previously familiar.

It is often urged that sales be made through the large packers in order to secure uniformity through blending. There is much to be said in favor of such procedure. Certainly brands should be established which will enable the housewife to depend upon getting what she wants.

It would seem, however, that the beekeeping industry has overlooked the advantage which might come to those who produce honey of special quality, if they would sell it unmixed with other honey and under its own name. While there is a great variety in color and flavor of honey in different localities, there is also a similar variation in the taste of the consumers. Honey which is too strong for one taste may exactly suit another.

In Michigan much honey is secured from raspberry, in Georgia there are large areas where gallberry honey is produced. New York has an area from which comes the wild thyme and the Southwest supplies honey from mesquite. Each one of these is distinct and worthy of its own special market. Dozens of other similar sources might be mentioned. We have gone too far with blending and have lost much by failing to cultivate special outlets for such honey as can be produced in sufficient quantity to justify such an effort. Perhaps those who produce honey of distinct quality can improve their position in the market by advertising this fact and stimulating a demand for their special product.

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Changing Bee Pasture

This magazine has commented on many occasions on the subject of changing bee pasture during the past few years. So many letters continue to come to the editor's desk telling of personal problems of the readers that it is constantly kept before us. Today we have a letter from a large honey producer in Ohio saying that he must find something to replace the white sweet clover and alsike on which he has formerly depended or move to a new location.

In former years some of the finest bee pastures of the South were in gallberry locations along the Gulf Coast. Now large areas of gallberry and palmetto, both of which yield large crops of fine honey, are being cleared from the land with tractors and roller cutters in preparation for seeding to grasses for pasture. According to the Farm Journal, St. Johns County, Florida, fenced 80,000 acres of wild land of this kind in 1938 and has added an additional 60,000 in 1939.

Thousands of acres in several other counties are going the same way. Thus very large areas of bee pasture are cleared at once and the honey producer is confronted with the necessity of finding new locations and a new source of livelihood. No new honey plant is in sight to replace either palmetto or gallberry in this region.

The beekeeping industry is facing a critical situation.

Sugar in Nectar

The October issue of the Journal of Economic Entomology has an interesting article by George H. Vansell in which he reports the sugar concentration in seventy-six western honey plants. The figures represent aggregate averages of a long series of observations in Oregon, California and Nevada. While the amount of sugar present would vary in different plants and in the same plant from day to day, these averages are assumed to give an idea of the relative value of the sources from which they come.

So little work has been done along this line that we have nothing definite with which to make comparison in other localities but we anticipate that more will be done in the future. It is highly important to record similar data under varying weather conditions to see what temperature and moisture changes may affect results and also to ascertain probable influence of soil, altitude and other environmental factors on nectar secretion.

Vansell's tables show concentrations as low as 10% on the one hand and as high as 65% on the other. It is easy to see why the bees may work one kind of flowers freely while deserting another which may be in bloom at the same time. This information should prove of great importance to growers who are interested in securing pollination of economic plants such as fruits or legumes.

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Honey for Babies

From Wisconsin Horticulture we learn that Dr. J. Martin Johnson, of Ripon, Wisconsin, has found a formula containing honey to be more satisfactory for the feeding of babies than any other tried. He recommends equal part of evaported milk and boiled water to which is added seven per cent of extracted honey.

In the October "Institute Inklings" Imogene Dean Paulson tells that her doctor advised her to include honey in her baby's diet to avoid diaper rash. When sugar was substituted for the honey, diaper rash appeared but was quickly cured by a return to the use of honey.

Many doctors recommend the use of honey for babies, while some do not because of the variation in quality of the honey available in the market. There is a real opportunity for someone to put up a certified honey which can be depended upon for uniform quality especially for babies.

RARE BOOKS

Slightly Damaged Volumes

In consolidating the American Bee Journal library with that of the late C. P. Dadant, we find a large number of duplicates. Many of these are rare books and hard to find which we offer at bargains to clear up.

Any one of these would make a nice gift to the beekeeper in the family or a nice addition to any library.

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FRANK C. PELLETT.

Volume Eighty

THE coming of the new year always suggests a review of the past as a means of making plans for the future. Since the American Bee Journal is the oldest bee magazine in the English language much of the history of the beekeeping industry in this country is recorded in its pages.

Open on the writer's desk is number one of volume one which was published in Philadelphia, January 1861. The new magazine made a bid for attention at a critical time just before the opening of the war between the states.

As we begin volume eighty we are reminded that the magazine and the industry which it serves have survived many vicissitudes and many periods of uncertainty in the long years since it was launched by Samuel Wagner.

The world just now is in another of its dark periods. Many countries are at war and their major objective is to destroy the lives or property of their enemies. Although mankind has carried on such conflicts since prehistoric times, it seems unable to learn that nobody wins a war. The result is always suffering, sorrow, privation and death. When we mail our magazine to readers in foreign lands we cannot but wonder how many will reach the hands of those for whom they are intended. Some will have met a violent death, others will be with armies in the field and still others will have been driven from their homes.

Perhaps the race of men might learn a lesson from the bees. Scientists tell us that these insects have been long upon the earth and that they went about their normal business of gathering honey many thousands of years before the appearance of the first man upon the earth. Many other creatures which were present in the early years of their existence have long since disappeared.

While other creatures prey one upon another, the bee asks only to be permitted to gather a product which would otherwise be unused. In return for the nectar which she receives she performs a service to the flowers by distribution of pollen which insures their fertilization. Thus by giving more than she takes, by cooperating with her fellows in defense of her store and in attending only to her own business, while other creatures become predatory, she survives and less generous species one after another are exterminated.

In the early years of association with the late C. P. Dadant occurred an incident which made a lasting impression on the writer. In reply to an expression of anxiety as to the activities of a competitor, he said, "There is plenty for us all. Don't worry about the business your competitor gets. He must live as well as we. There is plenty for us all." He had become somewhat like his bees.

In these days of strenuous business competition we find one group of beekeepers fighting against another for a place in the market, instead of working together to provide a larger outlet for both. One group announces that it will meet all comers and sell at a price lower than others quote. This suggests further reduction by those striving to undersell them and thus the vicious spiral leads down and down until nothing but disaster can result for either group.

Is it too much to believe that the reason the bee still remains in a world from which so many of her early associates have disappeared, is because she has learned the secret of cooperation instead of competition? Although the action may be unconscious on her part may it not be that because she has made herself essential to so many other species, instead of a menace to their existence, she is able to maintain her place in a world where destructive forces continue to rule?

As we begin volume eighty we are hopeful that the present time of stress and storm will soon be over and that a time of happiness and prosperity may ensue. We look forward to an era of good will, first among beekeepers and then all mankind. Let us look for opportunities for giving as well as getting, for a chance to serve as well as being served. Let us remember that "There is plenty for us all."

It's The Berries

By GEORGE J. ABRAMS,

Specialist in Apiculture, University of Maryland.

Commercial Holly Pollination—A Possible New Role for the Honeybee

"'Heigh-ho! the Holly,'" I said, quoting Shakespeare.

"'Heigh-ho! the Holly,' may be O. K. for Mr. Shakespeare," said my friend, "but I say 'Heigh-ho! the berries.' 'Cause it's the berries that count in my business. There's plenty of foldin' money in those little red fellows. But if there ain't any berries—only leaves—there's just small change—and you and Shakespeare can have the leaves." That just about sums up the Christmas holly cutting business on Maryland's Eastern Shore Peninsula as I learned upon further inquiry among the commerical holly cutters. The holly buyers from the North who canvass the eastern seaboard holly regions know that Christmas-minded people want their holly with plenty of those jolly red berries and will pay for them. These buyers truck especially for Philadelphia and New York markets. They know that berry-minus holly will not bring a price and is more or less comparable to a Christmas Eve radio program without "The Christmas Carol." There is just something lacking. So—among those who cut decorative holly for the yuletide season, there's always the hope that the trees will be fruitful and yield plenty of the little red "pay berries."

Unfortunately, the trees do not yield plentifully every year. Some years there are practically no berries. These are lean years for the holly cutters. This is not unlike off years in the fruit business and since honeybees rented from the beekeeper undoubtedly do their most valuable orchard work during those years of dearth of bloom, it seems that possibly it would not be too fantastic to attempt holly pollination along much the same lines as it is done in the orchard business and attempt to bridge over these lean years. Several of the holly cutters, when approached regarding the use of bees, if not exactly enthusiastic about the idea, were willing at least to give it a try this coming spring and for enough springs to come to give it a fair test. Others think—well, never mind about that. Let's take a look at the holly tree and the whole problem and see what we're up against.

The holly family is a large one. There are about 170 species of the genus **Ilex** on this globe of which the greater number are found in Central and South America. The most important South American holly com-

Female branch showing berries. Here the bee may prove its value. Camera—L. S. McConnell, College Park, Maryland.)

American Holly, **Ilex opaca,** approximately 35 feet in height, with 18 inch trunk circumference below the branches. (Camera—L. S. McConnell, College Park, Maryland.)

mercially is **Ilex paraguayensis** from the leaves of which is made the famed Mate or Paraguay tea. The genus is well established in Asia, especially Japan and China, and is represented in Australia and Africa. But one native species remains in Europe whereas there are thirty species representative in North America, the most important to the beekeeper being the well-known gall berry **(Ilex glabra)** and our common holly **(Ilex opaca)** which often yields a surplus of fine table honey.

The classic holly of merrie England **(Ilex aquifolium)** eulogized by Southey in his "The Holly Tree," is the sole survlving indigenous species of this genus in Europe. It grows as an evergreen shrub or low tree and resembles our native American holly **(Ilex opaca)** only superficially. It does, however, give our species its common name—holly—derived, it is generally believed, from its early decorative uses during Holy Week. The use of holly at yuletide for decorations is a practice of considerable antiquity. The custom was derived probably from the old Teutonic practice of hanging evergreens within doors during the winter months as sylvan refuges for woodland sprites and fairies. We, in America, have taken over this delightful custom which, while providing an income for the holly cutters and sellers, unfortunately may prove to be a practice which in the end may seriously deplete our native species, especially if our preference for redberried holly over other suitable decorative evergreens continues unabated. The American Forestry Association, the U. S. Department of Agriculture, and the Garden Club of America are endeavoring to protect the American holly, not only from outright vandalism, but also from just plain unwise cutting. One of their main avenues of approach is the stimulating of increased cutting and use of the many fast growing evergreens in which this country abounds.

American holly at College Park, Maryland. The top branch shows male flowers and unopened buds, more than one bud or flower (often three) together. Branched stems. The lower branch shows female flowers. Only one flower on stems. Several buds may be seen also. (Camera—H. S. McConnell—College Park, Maryland.)

The American holly **(Ilex opaca)** as a tree is less well known than its foliage. It is a slow grower but often attains a height of forty to fifty feet with trunk diameters of from one to two feet. Occasional trees eighty feet in height have been encountered and trees four feet in diameter have been reported. Many trees live to the ripe old age of one hundred years. Favoring deep, fertile, moist soil, the American holly will, however, make slow but satisfactory growth in poor soil. It ranges naturally from the coast of Massachusetts where it is usually encountered as a shrub, southward along the coast into Florida, throughout the Mississippi Valley, from the Gulf Coast to Indiana.

Now, let's take a look at the pollinating problem. The holly is what botanists call dioecious. In other words, male (staminate) flowers are found only on the "male" trees and female (pistillate) flowers are found only on the "female" trees. This means then that one kind of tree produces flowers which supply pollen grains and the other kind of tree does not make pollen but sets the fruit or berry. Darwin, after studying the English holly, said "During several years, I have examined many plants but have never found one that was really hermaphrodite." A U. S. Department of Agriculture scientist, Dr. F. E. Gardner, who probably knows more about the bearing of holly trees than anyone else, confirms this observation. He, too, has never seen an hermaphrodite tree.

The whole problem of berry-set in the American holly seems to be essentially similar to the set of fruit in apple orchards, in that first there must be plenty of flowers; second, pollen must be carried from its place of origin in the staminate flowers to the pistillate flowers which set the fruit and insects must be depended upon to effect this transfer; and third, weather conditions favoring or hindering insect flight may be, as it often is, the deciding factor.

Consider first the numerical importance of the flowers. At present even the experts know practically nothing about the reason why some years the holly trees are loaded with blossoms and in other years are practically flowerless. They do know, however, that immediately after blossom time in the spring small buds or swellings called terminal buds form on the very tip end of the new spring shoots. They know, also, that the

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A Cement Engineer And His Bees

By Ruth Hodgson,

Wisconsin.

W. J. Maytham, Cement Consulting Engineer. He keeps bees for the spiritual values.

All the world's a stage,
And all the men and women merely players.
They have their exits and their entrances,
And one man in his time plays many parts.
(As You Like It—Shakespeare.)

W. J. MAYTHAM, consulting engineer of the Northwestern States Portland Cement Company, is also a beekeeper, doing much for the industry although he does not often sell a pound of honey. He is a busy man who finds time to indulge in a hobby because he believes every man should have one to lighten his leisure hours. Therefore he is not interested in beekeeping from the commercial point of view as most men are who keep bees.

Mr. Maytham bought his first bees in 1902. The whole outfit was delivered at his home one day when he was away on a business trip. The Express Company left it on the front porch. When he returned, he found the neighborhood in arms. Evidently a few extra bees clinging to the package had been exploring.

Mr. Maytham dug out his text book to find how to get the bees out of their package and into the observation hive. He started reading the book after supper and did not stop until he finished. It was daylight and he had to go to the office.

That day he scouted around and located a beekeeper who put the bees in the hive and set the hive in the attic, with a little tunnel which led to a hole in the window sash. He and his wife spent many happy hours watching the bees. He studied books and magazines to learn all he could about his new hobby.

The next year came more bees and an apiary. At first he thought he would make them pay their way, but he soon saw what that would mean in time and labor and capital outlay. He realized that if he kept enough bees to make a profit and took care of them as he should, he would have to neglect his business. He says "I couldn't afford to sacrifice my professional earnings as an engineer to become a beekeeper, and yet through all these years I have had it frequently confirmed that I did a wise thing to take beekeeping as a fascinating hobby."

Mr. Maytham, from the viewpoint of his professional capacity, does not consider beekeeping a way to a fortune. "The nearest approach to that I know of is in the Hawaiian Islands, through management and large capital control, under special environment and circumstances, with thousands of colonies. And strange as it may seem, the objective has been reached by a manager who was not a beekeeper when he took hold of the job. He was good at finances and knew how to keep books; knew how to make and digest records of costs."

Mr. Maytham is doubtless correct in this. However, many beekeepers know that a decent living may be obtained from bees properly handled. Yet Mr. Maytham, is a better engineer because of his relaxation. "Mrs. Maytham is a real playmate, entering into my experiments with pleasure." She dreads stings and has developed a special bee tight suit so she may enjoy the hobby without the usual revenge the insects inflict upon their owner.

Mr. Maytham's chief contribution has been through his experiments, many of which have been important to professional and commercial beekeepers. He admits himself, "My bees have been a source of pleasure and profit to others as well." He has stimulated the use of honey, producing one-half to a ton a year, yet does not sell a pound. The honey, in small containers, finds its way to organized welfare associations to distribute to people who cannot afford to buy it. Many times, thereafter, the same people, with money, will buy honey from other beekeepers.

The hobby, Mr. Maytham finds, has cost about $100 a year. "I would be a poor example to hold up to young beekeepers who measure success by the false standard of money instead of by a real measure—the amount you have helped others in the struggle through life."

From this point of view the Maythams are two of the most successful beekeepers in our industry. Their gain is spiritual. It is unfortunate that more people do not have a hobby that gives them the kind of life the bees give the Maythams.

Improved Stock

By F. B. PADDOCK,

Iowa.

IT might be well to build a picture of the present situation in order to attempt to project into the future. The practice which is prevalent, and has been prevalent for the last two decades, is that honey producers throughout the northern states depend on southern shippers for queens to head their colonies. In other words the livelihood of the honey producer depends upon the quality of stock which he receives from the southern shipper. You are dependent to a large extent upon the background of the stock which you buy.

Let us look into this person whom we call the shipper. What is the background of this individual? What does he look like? How did he grow up? Does he live in town, on an acreage, or on a farm? Is he a jolly fellow or is he of questionable disposition? What is his training for queen-rearing work? Did he go to high school, college? Did he take special training in the genetics of animals and plants, so that he has a picture of what should be done with bees? To that extent, how well qualified is he for assuming the position of queen breeder? How many years of experience has he had as a queen breeder? If he has been raising queens for two years, was he a school teacher before, or was he a cotton farmer, or perhaps he was a steam fitter in town? It is a matter of record that more people are going into the queen-rearing business each year. Most of these people have had little or no experience in queen-rearing and they have had little or no background in the way of knowledge which would enable them properly to do the business and to serve the trade which they are attempting to supply.

What is the situation surrounding this shipper of queens? What is his locality? Is it in a good agricultural region or is it in a poor agricultural region? How close are the queen-rearing operations to woods of various kinds? Is this locality in which the queen shipper is located favorable for honey production? Is it favorable for growing good daughter queens? If the yard for mating is located in a woods, what are the probabilities of mismating? What has this queen shipper done to free his territory of drones not desired for mating? Many of the queen shippers are located in a poor agricultural section where honeyflow conditions are indifferent and surely there is a possibility for stray drones in the woods which surround many of the queen-rearing and queen-mating yards.

What is the origin of stock for this queen shipper? From whom did he buy his queens which are used as mother queens? Has any history of this stock been obtained by the present shipper when he started up in business two years ago? Has this shipper of bees attempted any selection for improvement in his stock since he has been engaged in rearing queens for the northern honey producer? What standards have been erected by this queen shipper for maintaining his stock to a high level of performance? Can this stock be tested in his own environment for honey production results? What effort has this shipper made for cooperative arrangement with honey producers for testing out his stock and returning mothers of good performance?

One of the largest shippers of queens in the South last year selected breeder queens through the eyes of a helper who had been employed in the work only two years. The breeder queens were selected early in the spring without reference to their honey production qualities last year and were based almost entirely upon the size of the queen and her light color. Is this the origin of stock which will make you the most money in honey produced under your honey producing conditions?

Now we have been looking at the shipper of package bees, but let us look at the producer. What is the background of the producer? How long has he been engaged in honey production and how thoroughly does he understand its fundamental principles? If he has been producing honey but a short time, was he a success in his former business, or has he been a failure throughout his life, grabbing at honey production as a possible lifesaver? A good background is just as important for the honey producer as it is for the queen shipper. Good stock, mishandled and not appreciated by the producer, would give poor results.

What is the situation in the locality where this honey producer is operating? Is it really adapted for good honey production? What is the general system of management used by this honey producer? Is he one who attempts to harvest 250 pounds of surplus honey per colony in equipment which will hold only 125 pounds of honey? Is this producer careless with combs, with equipment, and with extracting operations? Do these various stages of operation indicate that this man is a careful, business-like producer, or a slipshod, indifferent producer?

What is the honey producer's idea of good stock? What are his standards of good stock? Does he feel that it might be posssible to buy stock of a 500-pound strain and secure 500 pounds of honey regardless of his operation of the colony, or the amount of equipment on hand? Does he buy on price. How much emphasis does he place upon the record of performance of his stock? How is the interest of this producer expressed toward better stock? Is he continually striving to get better stock based upon performance or is he continually shopping around to get cheaper queens?

If, by this questionnaire, we have created a background for the existing conditions, let us look into the situation as it is at the present time. What is being done? Are the producers inquiring into strains in an effort to find one better adapted to their conditions and the type of honey they produce? It seems there is a tendency on the part of the larger beekeepers to do just this thing, and this is a hopeful sign.

There is a tendency on the part of honey producers to recognize special qualifications necessary for producing extracted, bulk comb and section honey. Some producers are interested in at least two kinds of honey production, extracted and bulk comb, or extracted and section. It is known that some strains are adapted for comb honey section production, some for producing bulk comb honey, and it is recognized that some strains produce extracted honey better than others. There was a time not long past when it was assumed that any queen might produce bees which would gather extracted honey, yet it is evident that some strains are better at this than other strains.

There is an increased cooperation between the producers of honey and

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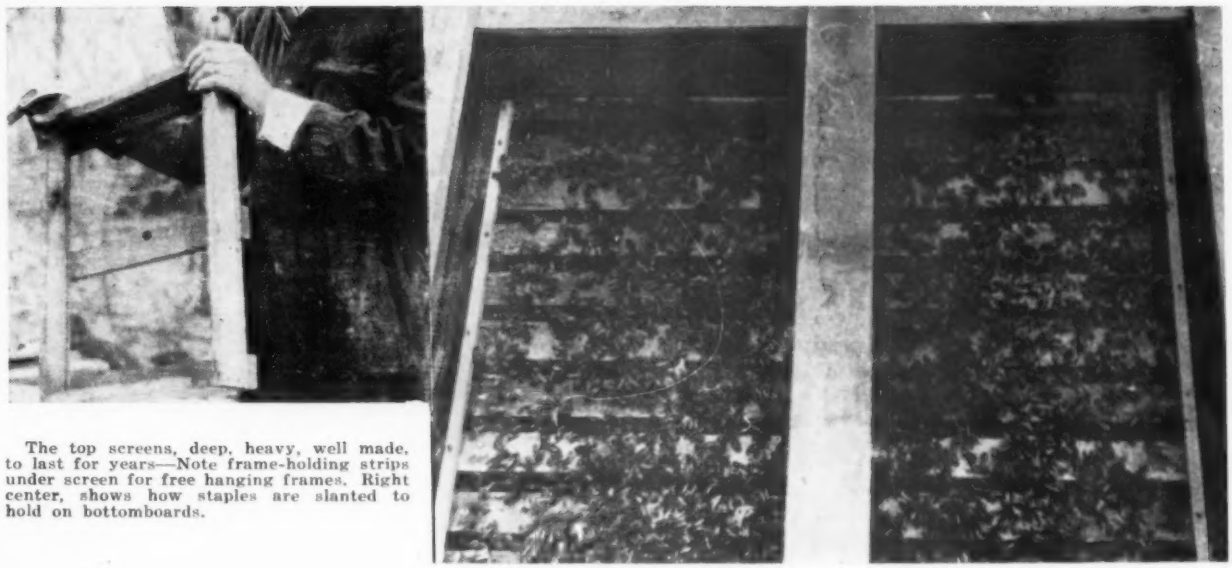


The top screens, deep, heavy, well made, to last for years—Note frame-holding strips under screen for free hanging frames. Right center, shows how staples are slanted to hold on bottomboards.

Moving Bees In Safety

The article by Lee Watkins November issue, page 526, telling how bees may be moved without screens provokes the present picture and short account of a method of moving with complete screening so that bees may be taken from one place to another even in the hottest weather, risking truck breakdowns, station stops, and delays of unexpected nature.

Moving bees overnight distances without screens as Mr. Watkins describes is often used. We use it ourselves. At certain times of the year, particularly when the weather is cool, it works beautifully. When the weather is hot, it is less desirable; in fact, sometimes quite annoying and a destroyer of religious ethics. Whenever bees are to be moved when the distance is too great for the trip to be made at night or where it is more desirable to do it in daylight, we prefer the screening.

The construction of top screens and their application on the old style Dadant hives are evident. Similar screens with a flush edge or a slip-over edge may be made for standard or Modified Dadant hives. The front screen allows the bees to cluster outside at the entrance and there is a full draft of air through the hive at all times. We have carried bees three or four hundred miles with this kind of screening in weather up to 105 degrees in the hottest part of summer with little loss. Sometimes there is suffocation in the front bottom part of a load but the lighter colonies may be placed there or dummies used to avoid loss.

G. H. Cale,
Illinois.

At lower right, is the entrance screen. It is high, wide and deep, to allow bees to cluster outside. The entrance is left wide open under the screen. Yard at left is screened ready to move. Entrance screens are applied at dusk or in early morning, before flight.

From Our Honey Plant Test Gardens

By FRANK C. PELLETT,

Iowa.

Cleome flower.

The Spider Flowers

PLANTS belonging to the genus Cleome and related genera have long been recognized as good nectar sources. The Rocky Mountain bee plant has been reported as the source of surplus honey from Colorado and in past years has been much planted by the beekeepers.

A related species, **Polanisia trachysperma,** is native to Iowa and Kansas and westward to California and Washington. It is rather coarse annual which begins to bloom about June 20 and continues until September. Like others of the genus, it is attractive to the bees and if available in sufficient acreage would probably yield a good quality of surplus honey.

We planted our first seed in the spring of 1938 along with seed bought for **Cleome spinosa.** The plants of the two lots appeared to be identical and both belonged to this species. Since this plant is a native of the Missouri Valley region, it would appear to be likely to succeed when the seed is scattered in waste places.

Golden Cleome or Yellow Spider Flower

Among the most interesting of recent additions to the garden is the tall growing, yellow spider flower or golden Cleome, **(Cleome lutea).** Just how this plant could be so long overlooked by gardeners, and especially by beekeepers, is hard to understand. It is a quick growing annual with a long blooming period and appears to be one of the most promising honey plants suited to this region.

Many beekeepers in the vicinity of the Missouri River have a serious pollen shortage in late summer. With the close of the sweet clover flow, there is little left for the bees until the following spring. As a result the bees curtail brood rearing and in many neighborhoods the colonies are poorly prepared for winter. Too often there are few young bees and too little reserve pollen to bring the bees through in good condition.

Golden Cleome was first planted in our test plots in 1938 when a small plot was included among the new introductions. An occasional blossom appeared in late June with a constantly increasing number until October when the plants were finally killed by frost. Bees were attracted in such numbers that it seemed worth-while to give the plant a more extensive test in 1939. It was accordingly selected for field test and five rows, more than twenty rods in length, were planted.

Since the plant reaches a height of seven or eight feet with a corresponding spread of branches, it became necessary to thin to about two or three feet apart for best results. This larger plot confirmed our good opinion of **Cleome lutea** as a source of bee pasture. It yields a rather scant pollen supply and seldom does a bee get a full load, but nectar is secreted in such abundance that at times the bees sound like they might be swarming when working on the Cleome.

At first the flower clusters appeared only on the terminal of the center shoot, but soon flowers appeared at the ends of the larger branches also. As the season advanced, more and more flower clusters came on the smaller branches until even the smaller side shoots were in bloom. More than three hundred such flower clusters were found by actual count on one plant in September.

The effect on a nearby apiary of this plot of only one tenth of an acre was surprising. Although not enough honey could be gathered from such a small area to go very far toward the support of so many bees, enough did come in to keep up brood rearing after other apiaries not far away were bare of brood. The flowers were alive with honeybees and also with bumblebees, butterflies or other insects from dawn until dark. In nearby hives, clusters of late hatched bees left the colonies in much better condition for winter than would otherwise have been the case.

A frost in October that killed pumpkins and other tender vegetation showed but little effect on this yellow Cleome. The bees continued working until a heavy freeze on October 14 finally killed the plants. At that time the temperature dropped to 15 degrees Fahrenheit.

Cleome lutea is found in the wild state from Nebraska south and west to California. There it occurs in the desert regions of Inyo and Mono counties. It is probably due to the fact that the plant seldom is plentiful that its value to the bees has so long been overlooked.

It is unfortunate that no useful purpose for the plant aside from a source of bee pasture, is known. If it could be turned to good account otherwise so as to be worthy of general cultivation, it would seem to be a bonanza for the beekeeper.

Perhaps it may be possible to establish it in waste places where conditions are favorable. It reseeds freely, but does not seem to be able to compete with weeds to any great extent. It should be tried on the Missouri River bluffs on soils which do not form sod and where certain areas have tendency toward bare spots. It would be a valuable addition to the bee pasture of that region if it can be established in sufficient quantity. Certainly this plant is sufficiently valuable to the beekeeper to justify some effort to find a place for it.

It sets seed freely, but the seed is difficult to secure because of the tendency for the pod to split open while still green. The seed is thus scattered before it is apparent that it is ripe. Once a demand for seed appears, the seed houses will stock it, but, for the present, very little is available. Beekeepers interested in spreading it in their neighborhoods may well buy a packet of seed and cultivate a row of the plants in the garden. From such a beginning, they can shortly secure sufficient seed for wider distribution.

Nectar Analysis

A few years ago Dr. O. W. Park developed a method of determining the sugar content of nectar by use of the Abbe refractometer in connection with his research work at the Iowa Agricultural Experiment Station. Following a frost which killed pumpkins and other tender vegetation, the bees continued to work the Cleome freely although they did not appear to be getting their loads as easily as before the frost. Dr. Park examined the nectar carried in the honey sacs of a number of bees and the following is his report of the result:

"Determinations were made by means of an Abbe refractometer, on the nectar content (1) of the honey sacs of bees found working on **Cleome lutea** at the Pellett Gardens, Atlantic, Iowa. The bees were collected between 1:00 and 4:00 p. m., September 30, 1939. During this period the temperature stood at approximately 60 degrees Fahrenheit and the relative humidity at 32 per cent. Of forty-four honey sacs subjected to the test, the lowest sugar content found was 15%, the highest 35%, and the average 23%."

(1) Park, O. W. Studies on the changes in nectar concentration produced by the honeybee. Research Bul. 151, Iowa Agr. Exp. Sta. 1932.

—ABJ—

Golden Wedding

Mr. and Mrs. Frank W. Jones, Bedford, Quebec, celebrated their golden wedding on December 2. Mr. Jones is well known in beekeeping circles, having founded over 61 years ago the bee supply manufacturing business widely known today as F. W. Jones & Son. Both Mr. and Mrs. Jones have borne the years well, and their interests in current affairs have not been dulled in the least. Mr. Jones daily performs certain business duties, and his sage advice is often sought and respected.

During the day about one hundred friends called at their home to pay respects, offer congratulations, and recall many incidents of former days. Refreshments of various kinds were served. The couple was deeply touched when a gold-lined, silver fruit bowl suitably engraved was presented to them by the employees of F. W. Jones & Son. After a short address was read conveying congratulations and good wishes, the firm's oldest employee, Wm. Creller, with some thirty-eighty years of service, made the presentation.

—ABJ—

A New Bulletin

"Beekeeping in Minnesota" is the title of a new bulletin of 32 pages by M. C. Tanquary. It is Extension Bulletin No. 204 and may be had on request of the University of Minnesota at University Farm, St. Paul.

Dr. Tanquary is especially well qualified to write such a bulletin. As a university professor he is in position to know how to present the material and as a large scale beekeeper, who has learned by personal experience all the problems of the honey producer, he can tell the beginner the things which will enable him to get started right.

The fundamentals of beekeeping are described in clear and understandable language with reasons for each necessary operation from the installation of the bees to the care of the honey crop and wintering of the colony.

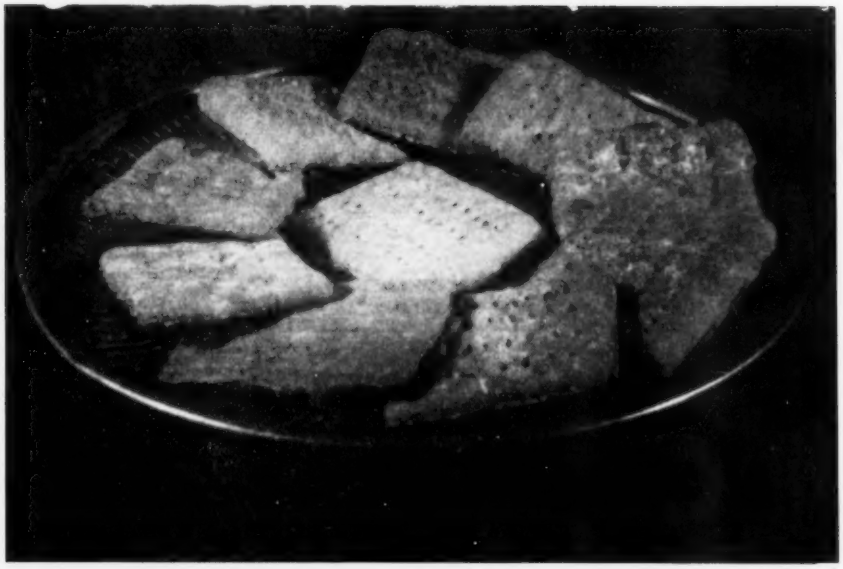
—ABJ—

Jim Has Lost His Whiskers

Many people at the Sacramento meeting failed to recognize our old friend, Jim Hambleton. For some reason or other, the bushy whiskers had disappeared and Jim again had regained his youthful countenance and figure. For a man with two grown-up daughters, Jim shows no signs of losing his youth.

At left—Melvin Pellett by large Cleome plants. Below—Frank Pellett by the long rows that made fall brood rearing in a land where fall brood is often scarce.

Cookies From Afar



[These six recipes complete the series which Stella Launer Gill uses in connection with her review of "Cookies, More Cookies," by Sumption and Ashbrook (Manual Arts Press, Peoria, Illinois.)—Editor.]

Honey Crackers *Hebrew*

2 c. flour
f.g. salt
2 eggs
½ t. allspice
2/3 t. soda
1 t. lemon juice
½ lemon rind, grated
2 T. honey

Mix the dry ingredients; add the lemon rind, juice, honey, and the unbeaten eggs. Beat well. Add the flour. Roll thin and cut. Bake on a greased cooky sheet in a moderate oven 15 minutes. These are good, but not sweet. If a sweeter cooky is desired, they should be iced with C. sugar and lemon juice icing. Do not keep them long as they dry out.

♦

Basler Lekerli (Brazil Sweets) *Switzerland*

2 c. honey
2 c. sugar
5 c. ground, unblanched almonds
¼ c. rum, brandy, or fruit juice
1 orange rind, grated
1 lemon rind, grated
1 t. cloves
1 t. cinnamon
½ t. nutmeg
1 c. citron, ground
7 c. flour

Melt the honey and add the other ingredients. Let this chill for a week. When ready to bake, warm the dough and roll into a sheet. Bake in a moderate oven, on a greased cooky sheet, 10 minutes. While still warm, take from the pan and ice. Cut in squares. These keep a long time; and this makes a huge amount. Cut it down for the average family.

♦

Fruit Drop Cookies *America*

1 c. dark honey
1 c. brown sugar
1 c. butter
2 eggs
2 T. cinnamon
2 t. cloves
1 t. allspice
1 c. raisins

Boil the above together, stirring constantly for five minutes. When cold, add ½ t. soda dissolved in 1 c. sour milk, 1 c. black walnuts, and enough flour to make a stiff dough. Drop by teaspoonfuls on a greased cooky sheet, and bake in moderate oven 15 minutes. This makes a large quantity of fruit cookies that "are different" because of the previous cooking of most of the ingredients. They will keep a long time.

These six recipes conclude Stella Launer Gill's review of "Cookies and More Cookies" (Manual Arts Press) begun in the December issue.

Lebkuchen *Germany*

2 c. honey
½ c. sugar
1 T. cinnamon
1 T. soda
1 wine glass of whisky (¼ c.)
Juice of 1 lemon
1 c. finely chopped citron
1 c. blanched almond strips, roasted with 1 T. sugar.
3 egg yolks
8 c. flour
3 egg whites

Bring the honey to a boil; add the sugar and cool. Add the cinnamon, the soda stirred in the whisky, the lemon juice, and the citron. Add the egg yolks and the flour to make the dough. Lay the roasted almonds on a board, and cover with the dough. Let stand overnight. Next morning roll out one-fourth inch thick, cut in strips, and bake (almond side down) on a greased cooky sheet in a moderate oven 12-15 minutes. Frost with icing while warm.

♦

Sienese Ginger Strips *Italy*

1 c. honey
½ c. chopped, unblanched almonds
⅛ c. chopped peel
⅛ t. cinnamon
⅛ t. ginger
⅛ lb. grated sweet chocolate
1 c. rye flour.

Warm the honey; add the nuts, peel, spices, and chocolate. Then add the flour. Spread on a greased cooky sheet, and bake in a moderate oven 15 minutes. Cut in strips while warm, and sprinkle with G. sugar. These are unusual in flavor—very chewy.

♦

Cremona Honey Cakes *Italy*

½ c. honey
½ c. chopped, blanched almonds
½ lemon rind, grated
2/3 c. flour

Boil the honey and almonds slowly 5 minutes, stirring all the while. Add the flour and lemon rind, and roll at once into a thin dough. Cut in rounds, and bake on a greased cooky sheet in a moderate oven—5-8 minutes. These are hard after baking, but will soften in a week into a good, chewy cooky which keeps well.

Sea Lavender (Limonium carolinianum) in New Jersey salt marsh. Found along coast from Nova Scotia to Texas.

Sea Lavender As A Minor Source Of Nectar

By ARLENE REASONER,

New Jersey.

♦

Sixteen colonies of bees were exiled to the salt marshes near Atlantic City again this fall as a continuation of the experiment to gain a second fall honeyflow for beekeepers in southern New Jersey. A year ago, two hives were placed on a barge in the swampland. This year, the beekeeper's entire apiary was on stilts in the same location.

For a long time, Fred W. Schwoebel of Pomona, insurance salesman practicing beekeeping as a hobby, recognized the need for a fall honeyflow in southern New Jersey; now he is trying to do something to provide it.

"Several years ago, while I was fishing near Atlantic City, I noticed wild bees feeding on sea lavender **(Limonium carolinianum)** in bloom on the salt marshes all around me," Mr. Schwoebel related. "I knew those little orchid-colored flowers remained in heavy bloom for about a month, from August 15 to September 15. Somehow, the memory of those transient bees on the late summer flowers and my worry over the need for an additional honey crop to supply my own bees through the winter, grew into one idea in my mind.

"Two years ago I placed two hives on a barge in the salt marsh, far enough from the main land so that their only food supply was the sea lavender in bloom. At the end of the season, last year, those two hives provided me with twenty-five pounds of honey for our own use. With what remained, they weathered the cold months in better condition than any of the other fourteen colonies. The honey was delicious too, with a clear light amber color and a mild, pleasant tang to the flavor."

Fred W. Schwoebel, of Pomona, examines his bees, gathering nectar from sea lavender in the salt marsh.

♦

This year Mr. Schwoebel had all of his sixteen hives in the salt marshes, but on wooden platforms. "Since last fall," Mr. Schwoebel explained, "the barge has been moved. Such bobbing up and down would never be tolerated by the bees."

This year, Mr. Schwoebel's conclusions are disappointing. He says: "I am afraid that my experiment this year is a failure. I feel certain this is due to the storms and continuous cloudy and windy weather we had during the last two weeks in August, together with the extremely high tides we had at that time.

"At least I have learned a little more about this flower as a honey

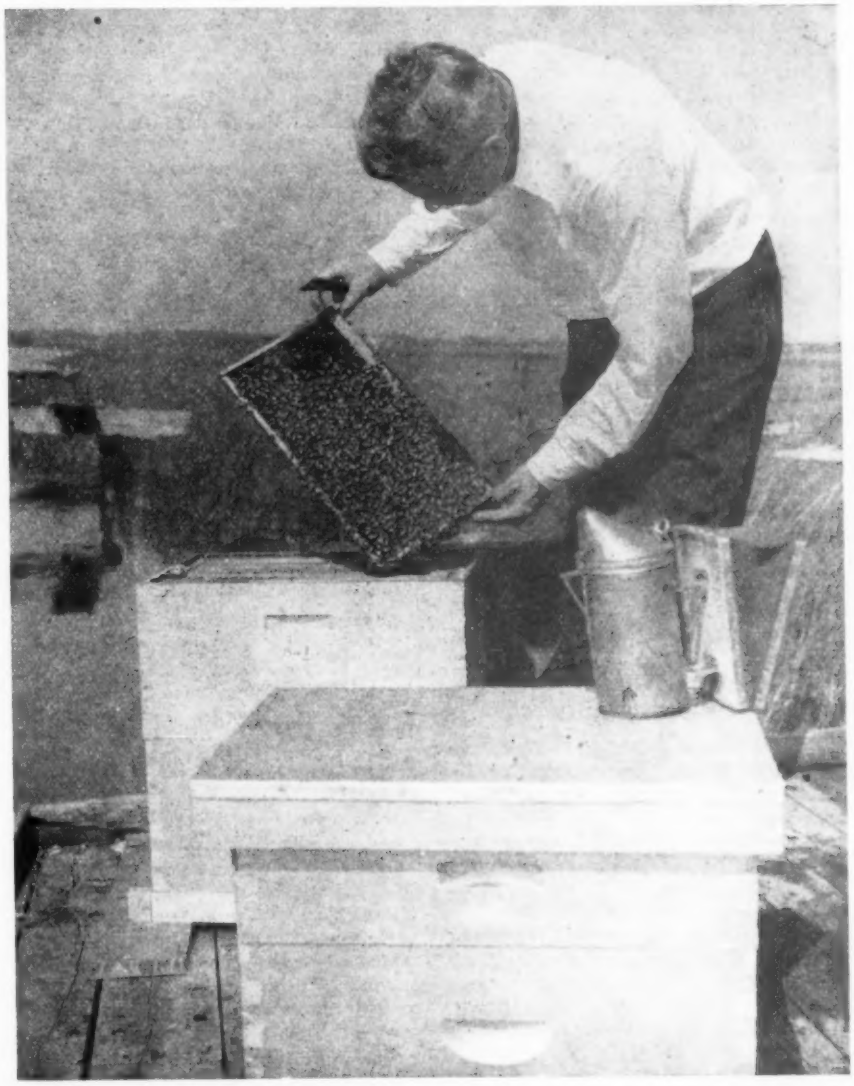
source. I would say at this time that the commercial possibilities are very poor, since I would expect an average of fifty pounds per colony with reasonable regularity every year to make it worth while. However, I hope to make the test again next year, probably on a smaller scale. It may take a number of years to establish definitely the value of this plant as a honey flower.

"One interesting fact brought out this year is the great difference in the performance of individual hives under the severe flying conditions of the marsh. Some of the light-colored gentle bees that did well inland were simply not able to stand up under conditions on the marsh, while the darker bees (dark Italians and cross-bred) were active in spite of wind and rain."

It is true that the weather was bad during part of almost every day while Mr. Schwoebel's hives were on the marsh. And it is evident that the results of several years' experimenting with sea lavender will be necessary to determine whether or not it is actually an additional source of nectar in areas where it occurs.

Sea lavender extends along the coast from Nova Scotia to Florida and Texas. In Southern New Jersey, Mr. Schwoebel stated, most beekeepers depend upon the early blooms in orchards and market gardens to provide their honey supply for the year. During the summer the bees may feed on Clethra, sweet pepper bush of the fresh water swamps, but without a fall honeyflow, there is little surplus honey—usually only enough for the bees themselves after the middle of July.

For beekeepers who would take the trouble to move their hives each year, Mr. Schwoebel hopes that, in favorable years, there might be the combined profits of marketing an appreciable amount of additonal honey, and of stimulating the hives by fall feeding, thus putting them in condition to withstand the winter.



Schwoebel is trying an experiment in winter conditioning from a minor late fall honey plant, an attempt to understand what nature has proposed as the ideal for the bee.

Try These On Your Baker

The following recipes are from the "American Independent Baker" and will suit the procedure in any bakery. Take them to your baker.

Chocolate Cream Layer Cake

Of course included in your special feature items you have to have a Chocolate Cake. That's why our next suggestion is a Chocolate Cream Layer Cake which can be made as follows:

2 pounds of butter
4 pounds of powdered sugar
4 ounces of honey
½ ounce of soda
Vanilla
1 pint of egg yolks
1½ pints of sour cream
14 ounces of melted bitter chocolate
1 quart milk
4¼ pounds of cake flour
1¾ ounces of baking powder
1 pint of beaten egg whites

Cream the butter, add the sugar gradually, then the honey, egg yolks, sour cream and melted chocolate. Add the flour and milk alternately and then fold in the beaten egg whites.

Scale in layers, bake, fill and top with the following Chocolate Cream Icing:

1½ pints of cream
8 ounces butter
14 ounces of melted chocolate
5 pounds of XXXX sugar (approx.)
Vanilla

Warm the butter and cream over a slow fire. Add the melted chocolate, take off the fire and add the necessary XXXX sugar to bring to the proper consistency.

(American Independent Baker, September 11, 1936.)

* * *

Honey Nut Bars

This is really a Turkish cookie, one of those rare and delicious filled cookies that many of your customers will like.

Make your cookie dough as follows:

2½ pounds of sugar
1 pound of butter
8 ounces of honey
1½ pints of eggs (beaten)
4 pounds of cake flour
½ ounce of baking powder

Roll out a portion of this cookie mixture to line the bottom of a buttered baking sheet. Now brush over the entire surface with soft butter and sprinkle enought of the following mixture over it to cover the buttered surface:

1 pound granulated sugar
1 pound finely chopped nut meats
1 pound finely chopped cherries

Mix well together and sprinkle over the buttered surface as suggested above.

Now roll out another sheet of the cookie dough and place on top. Wash the top and bake in a moderate oven. Cool and cut into 1 by 2½ inch bars.

This gives you a delicious Honey Nut Sandwich Cookie that will be a welcome addition to any picnic basket.

When you make cookies that are especially tasty and suitable for picnic baskets, be sure you call the attention of your customers to them. People do go on picnics during the summer, and if you remind them to take along cookies that are especially suitable for such occasions you will find it possible to increase your cookie sales.

(From American Independent Baker July 15, 1938.)

This and That • • From Here and There

Bees and Soybeans

In Postscript for December, Editor Pellett mentions the lack of definite information regarding the working of soybeans by honeybees. At the field station of the University of Illinois, College of Agriculture, where numerous varieties of soybeans are grown in test plots, examination on various occasions have revealed no bees working on any of the varieties in spite of the fact that there was a dearth of nectar from other sources.

A few years ago we placed wire screen insect proof cages over soybeans at variable distances from several colonies of bees located on the edge of a twenty-five acre field. Although we were absent during the actual blooming period, examination of the covered plants and those outside after pod and seed formation disclosed that there were just as many seeds per pod beneath the cages as on the plants outside the cages. The only shortage of seeds in the pods were in the pods that were heavily shaded by a close clustering of the vines but this condition was also true on the vines outside the cages.

Since soybeans are self-fertile and do not require insect aid in pollination, it seems reasonable to assume that as with other plants, there should be little, if any, nectar available to attract the bees for the service needed for seed formation.

V. G. Milum, Apiculturist,
Urbana, Illinois.

♦

A Method of Hiving Package Bees

The credit for this method of hiving package bees must go to Edwin J. Anderson, Pennsylvania's able extension apiarist who demonstrated it to me. Because it has proved so successful, I want to pass it along, as it may help someone else as much as it has helped me.

Last spring I installed twenty-five of my packages with the old method of leaving the shipping cage in the hive and fifty-eight of them with this new method.

Results: Old method--combs drawn in brood nest and fifteen pounds of surplus honey per colony. New method—combs drawn in brood nest and 200 pounds of surplus honey per colony.

Here is Edwin Anderson's method and it is fast too. Take out half the frames and sprinkle sugar syrup on the bottom and sides of the hive. Then open the package of bees and hang the queen in her cage by the wire attached to it from a nail in a frame near the hive center but not right at the center. Next dump the bees out of the cage through the opening where the feeder can has been removed and into the vacant space where the frames have been taken out. Sprinkle more syrup on the bees and replace frames. Put the inner cover with a feeder pail over the hole in the center of it. This will feed the bees without the necessity of breaking their cluster around the queen and yet she is not directly under the feeder to be drowned by any possible drip in case it should leak.

The success of this method is in the ability of the cluster to cover the caged queen, the feeder entrance and a section of comb or foundation all at the same time.

Ernest M. Bendure,
Pennsylvania.

♦

Bumblebees Mating

For five years, I have wondered if anyone else ever had the privilege of witnessing the mating of bumblebees. Since such cases have been so rare with the honeybee, it would seem that the same might hold true of the bumblebees.

On August 22, 1934, while on my way home from Toronto, I stopped for an ice cream cone. Rather than risk one-arm driving, my thoughts said "Why hurry?" As I sat alone gazing out the window two insects circled right in my line of vision and united. At once, I thought this might be the mating of our Apis Mellifica. How wonderful that I was to be permitted to witness so rare an occasion.

I glued my eyes on this slowly flying bunch without even allowing a wink. It drifted about forty yards to the ground, not far from a cardboard candy box that would mark the spot. I was slightly disappointed that they were bumblebees, but I decided to wait and see if the drone survived. Between each short series of impulses there were rest periods of longer duration. I took out my watch to time the contact and after waiting thirty-five minutes, thought it possible it would take too long. The impulses were at greater intervals. The queen was using her hind legs to dislodge the drone without avail.

Since I had another call to make, I took the candy box and carefully rolled them in. After driving three miles, they were still in contact. When I got home, a thought struck me. I happened to have a bumblebees' nest in my honey house which I had been examining from time to time. It was arranged so that I could bump on the floor and trap all the workers in a screen cage, then examine the brood and queen at leisure. I had a large screen cage which would hold a whole colony of bees and placed the wedding couple in it. Then from the bumblebee cage, I introduced three of four drones. The moment this was done, they separated. I looked at my watch and found that the contact lasted one hour and forty-seven minutes. I wondered if any odor from the queen would attract the fresh drones, but nothing could be noticed. It is possible this would not result in cage confinement. The mated drone flew about freshly so I determined to examine the organs. Since these four drones were of the same species, I had to examine all four. With the small glass used, no difference could be found in any of them. I came to the conclusion that these mated drones lived on in the normal way and died from cold and starvation.

I do not say mating does not also take place in the flowers, but I do say that it takes place on the wing since this was before my very eyes.

Chas. E. Phillips,
Ontario.

♦

Desire for Expansion

Swarms, artificial divisions, and the ease with which package bees and nuclei can be obtained have facilitated increase and the desire of some to expand. Overexpansion, ahead of the knowledge and skill of the operator, or his ability to keep pace with the increase in his holdings, seems to have become a great handicap to some whose dreams and ambitions have been allowed free rein. It seems that many beekeepers still count their success by the number of hives they have or try to operate—a great mistake. Even the commercial men sometimes get more

colonies and outapiaries than they are able to look after properly. It is well to remember that the bigger they are as beekeepers, the harder they fall when disease strikes or unfavorable conditions prevail. Too rapid expansion in the bee business usually means a sudden contraction when a hard winter or an unfavorable season for honey production comes along.

Just now (September) hundreds of colonies are on the verge of starvation in several large commercial yards in eastern Indiana where all the clover has been stripped off or where colonies built up from nuclei failed to reach their peak of strength in time to take advantage of the clover flow. Only a very large fall flow from white aster or wholesale feeding can save such apiaries.

To the average farmer or back lot beekeeper allow me to say that the man with only four good colonies and four additional hives with drawn combs to be used as supers for each has a chance to produce 800 pounds of surplus honey (or a 200 pound average) any normal year, with proper management; but a man with the same amount of equipment in 20 colonies in single story hives and no supers will get nothing except a crop of swarms. [James E. Starkey. Indiana State Beekeepers Association News Letter, September, 1939.]

♦

Meditations of a Back-Lotter On the Local Market

Is it the small beekeeper or the large one who injures the price and sale of honey on the local market? Many beekeepers with a few colonies should not be called beekeepers. They do injure the sale of honey. I know a beekeeper who sold a friend of mine two shallow combs of honey. My friend liked good comb honey and he thought this honey would be good. It was pretty and yellow. He tried to eat it but it was as bitter as quinine. He did not know that bitterweed makes pretty, yellow comb honey. He does now.

I wonder if the beekeeper who sold it knew it was bitterweed honey. If not, he should learn more about honey before he tries to market it. If he does know, he should not expect my friend to buy any more from him.

Another case is of a man with box hives. He sold comb honey, delivering it in a lard can. When the housewife opened the can to put honey on the table, about a quart of young bees were crawling around over the combs. They had emerged from the brood that was included in the pack. Did the producer not know enough to distinguish capped brood from capped honey? If not, he should learn.

Such things hurt the sale of honey. What hurts the price of honey? Is it the small beekeeper? If the small beekeeper understands his business, he should be on the offensive. I operate a few colonies for pleasure, and sell my surplus. I run for chunk comb, using nine shallow frames to the super instead of ten. Each comb produces four chunks weighing a pound or more each. My customers know they get a little more honey than they do when they buy section honey. The chunks are allowed to drain for about thirty minutes and are then wrapped in cellophane. It is sold locally and those who see it and like honey buy it. Customers come to my house or send me word.

The comb is not all cut out at one time. The supers are stacked in a room and fumigated with carbon disulphide, the combs being cut at intervals as needed. It keeps better this way and holds its appearance and rich taste. It granulates but little even when kept through winter. If it is cut out and packed in pails, however, it will granulate when cold weather comes. I get five cents more per pound for this than larger producers get for section honey coming from a distance on trucks.

So it is my opinion that the largest producers are those who depress the price. I get 20 cents a pound for my honey. In 1930, I got 25 cents. However, a producer with a truckload came in from 250 miles away, dumping honey in the grocery stores at a cheap price so that it retailed at 15 cents for a section of comb honey. This caused me to reduce my price from 25 cents to 20 cents to sell.

Why do not big producers coming from a distance cooperate with local beekeepers to maintain the market before dumping their product at a cut throat price?

Grocery stores near me have been stocked with extracted honey of nice packs and flavors, but the general public is afraid of the honey being adulterated and does not know that under present food laws, honey is not adulterated. In my opinion, fear is the greatest drawback to the sale of extracted honey.

B. P. Sieber,
Alabama.

♦

Federal Census

The inaccuracy of past federal census figures pertaining to the number of colonies of honeybees and the amount of honey production in the United States is well known and greatly to be deplored. I have taken it upon myself to voice a protest to the census authorities in Washington and have been assured that an effort will be made to correct this difficulty in the coming census of 1940. I think the new plan is to require all the census enumerators to ask the questions and secure the answers pertaining to this matter. New type questions will also be used in order to bring about the listing of bees in outapiaries or on farms of all bees not owned by the tenant or landowner. In the past, only bees on farms and owned by the landowner were listed. This omitted all outapiaries and bees in cities and towns.

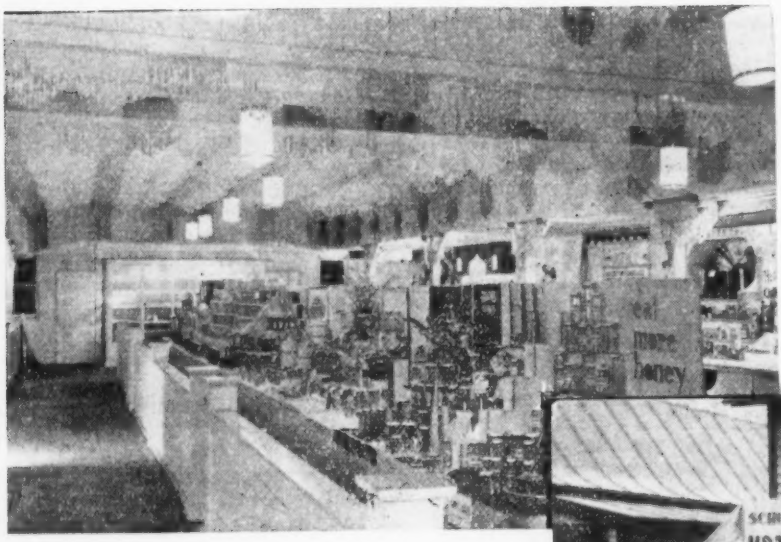
The listing of all colonies of bees within each county of the state and the amount of surplus honey produced is a matter of vital importance that concerns every beekeeper. Only through reliable figures can we arrive at a more logical and satisfactory basis for crop estimates and the price of honey. Until we get such figures, my guess is as good as anybody's.

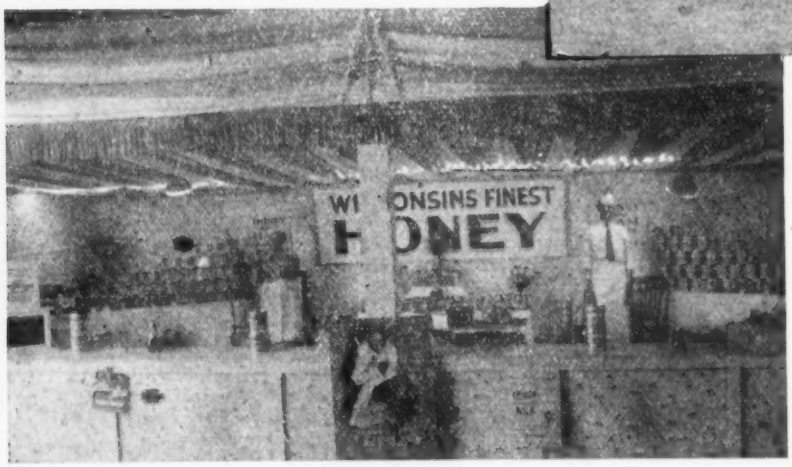
Some say census count makes no difference one way or another, as the law of supply and demand will regulate prices anyway. Perhaps that is true, but there are fluctuations, and the law fails too many times because too often the big buyers rely on their own propaganda or inaccurate reports of big surpluses and high yields in certain areas to beat down the price to all producers. In the absence of more reliable information, the producers find themselves at the mercy of the buyers. In other cases, the law fails to operate fully because the producers have such a limited view from their own back yards. Producers in the areas with the greatest production often fail to realize that such big yields as they may have may be and often are confined to a very limited area. So they sell for what they can get. It's a question of distribution as well.

As all the information to be secured and listed in the coming federal census has no relation at all to taxation or the payment of any fees but is to be held in strict confidence, no one should hestitate about answering freely. It is strictly up to us, as beekeepers, and to the census enumerators to get this information in full and as accurate as humanly possible.

Let me urge that you make a study of the proposed questions and your answers. Contact the bee owners of your locality and the farm owners where outapiaries are established and urge them to get a complete listing of all hives and an accurate estimate of production. It would be well also to contact your local census enumerator, find out what the questions are, and ascertain, if possible, if he has the right interpretation as to the purpose of the question. (James E. Starkey—Indiana News Letter, September.)

Our Pardon, Mr. Schultz





Top—Same picture shown on page 544, November, but now right side up as it should be—Wisconsin State Fair honey exhibits. (Photo from Gwinn) Center—Arthur Schultz' honey float, a good advertisement. Bottom—Schultz Winnebago exhibit (In November, the state fair picture was credited to him.)

We repeat a picture here that also appeared on page 544 in the November issue. The top left picture on the present page (Wisconsin Fair Exhibits) was given in November as President Schultz' Winnebago exhibit. To make matters worse, the picture was printed upside down. No one short of a magician could tell what it was all about.

Jim Gwinn sent the state exhibit picture, a good one of a splendid layout. We repeat it here, right side up. (Top left) At the bottom, left, is Schultz' Winnebago exhibit, a credit to a good honey producer. Just to even matters a bit more, look at Arthur's honey float. Doesn't he have the courage of his convictions —"Wisconsin's Finest Honey!" That's all right, Arthur. Having been with you and experiencing the delightful body and flavor of your product we can pardon the pride. We find mostly, that folks with pride in what they do are leaders in their craft. Mrs. Schultz shares his pride too (Naturally she is the lady beside Arthur.) A good honey cook, an enthusiastic, auxiliary worker.

A Garden Book For Everyone

If you would compress a whole library of garden information into one volume, in a book to give concise information on every conceivable garden question, "The Garden Dictionary," by Norman Taylor, is what you would achieve.

Here is a book of 896 large pages which comes as near meeting all garden requirements as one volume could be expected to do. The very first thing on opening the book is a map of zones of hardiness for woody plants. One can see at a glance the regions in which different varieties are likely to succeed.

The text is arranged alphabetically and includes all important plants of garden interest now in cultivation in this country. Detailed descriptions of different varieties are given along with cultural instruction. The book is freely illustrated with hundreds of line drawings and numerous colored plates. It is beautifully printed and substantially bound in serviceable buckram cover.

There are so many useful features that it is difficult for the reviewer to make selections which will enable the reader to properly evaluate the book. If your interest is in lilies you will find descriptions of forty-one species with information concerning their origin and culture. If it be phlox, iris or peonies you will find similar help.

Fruits and vegetables are discussed in similar manner and all are given as much space as the limits of one large volume will permit. Altogether 7,785 named species of plants are included in this book dealing with flowers, fruits and vegetables as no other single volume has done. The price is low for such a volume which represents a lifetime investment for the active gardener. It can be had for $7.50 from the publishers, Houghton Mifflin Co., Boston, Mass.

A Lesson From the Bees

An investment firm here has reached the conclusion that bees are extremely smart individuals and that it would be well for human beings to study them. So it has placed in its show window a glass beehive so that people can watch the goings-on of the bees and learn some sense.

A young man connected with this firm—Bagby Hall—being a bond salesman, believes that his bees can help him sell bonds, as the manager of the Investors Syndicate office says more people in Birmingham know where the Investors Syndicate office is now than ever before, as every day crowds stand before the window looking at the bees.

The observation hive that

is shown in the window is made of cedar and plate glass and was made by a small beekeeper in Birmingham. The bees work through a long chute run up the side and out a two-story window over the sidewalk.

Birmingham is quite a bee town. On my last inspection of bees in the city, I inspected over 4,000 colonies and did not find all of them that are kept in the city. Birmingham also uses quite a lot of honey, as each year there is approximately twelve to sixteen carloads of honey shipped into Birmingham from the northern states and consumed in Birmingham.

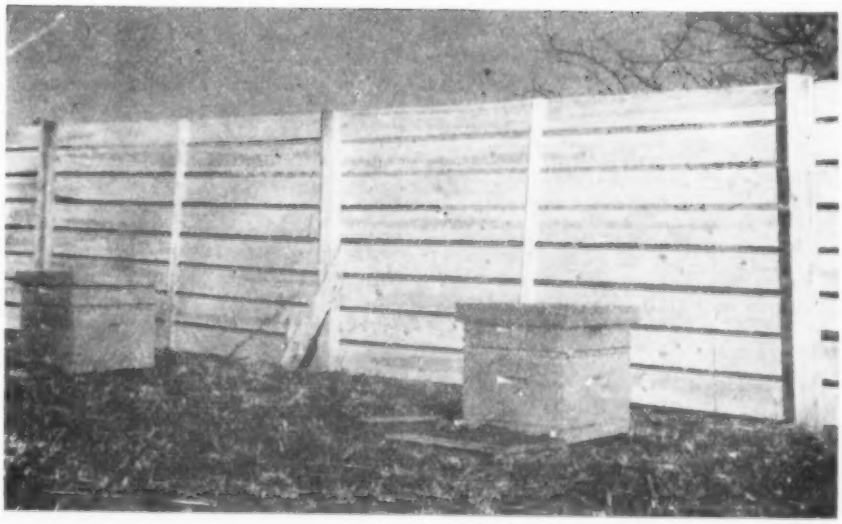
Thomas Atchison,
State Apiarist,
Alabama.

—ABJ—

Windbreak

This fence serves as a windbreak for my apiary and keeps the bees out of the road, just beyond it. It is six feet high, built of 8-inch boards with 1½-inch cracks. Even as far south as North Carolina, a windbreak of some sort is advisable. In the severe winter of 1935-36 all of my colonies, protected by a privet hedge, came through in fine shape, while another beekeeper of my acquaintance, whose apiary was situated in an exposed place without anything to break the force of the wind, lost six colonies out of seven.

Edgar Abernethy,
North Carolina.



Institute News Notes

May the year 1940 ring in Health, Happiness, and a rich Honey Harvest.

Do you know: That, during the year 1939, honey flowed through the air from coast to coast four times; on January 31 a representative of the Institute broadcasted from Chicago through the courtesy of the Goodyear Tire and Rubber Company; during National Honey Week this sweet message was broadcasted over the Farm and Home Hour:

> "Here's a sweet thought for the day, in fact, for the entire week. This is National Honey Week! The 800,000 or more beekeepers in the United States play an important role in the production of foods, and it is fitting that a definite time be set aside in appreciation of their contribution to the American table. Make an effort to serve honey this week and every week."

* * *

Through the courtesy of Grapenuts program sponsored by General Foods, honey was featured on the Kate Smith hour on November 24; on the Young Dr. Malone program, sponsored by Post Bran Flakes on December 8, both comb and extracted honey were mentioned; the Director of the Institute broadcasted from Vicksburg, Mississippi on October 29 and 30; from Sacramento, California; and four times over WHA and WLBL at Madison.

* * *

Wilson & Company had a most attractive advertisement on honey and Tender-Made ham in 123 newspapers in the United States on September 28; this same company featured Canadian bacon and honey on September 14; in Wilson & Company's column George Rector cooperated with the Institute and has included honey at various times.

* * *

Swift & Compny had a colorful full-page ad in McCall's and American Home in which honey-baked ham slices were illustrated with recipe; Eatmor Cranberries had on the cover of Practical Home Economics, November issue, a full-page ad in which they featured honey-baked ham slices with cranberries.

That governors in many states designated October 23 to 30 as National Honey Week; Department of Markets in various states cooperated with American Honey Institute in giving publicity to National Honey Week; the president of the National Association of Food Chains sent his message to all members in the United States:

> **"Honey Institute Establishes 'Week':** Word has been received from the American Honey Institute that it has designated October 23 to 30 as 'National Honey Week.' The Institute states that its plan has been devised to help 800,000 beekeepers and their families. They further report that a number of governors are aiding by proclaiming this week as 'Honey Week,' and that Departments of Markets in various states are offering cooperation. Having heard of the cooperation given by the chain food stores on the occasion of 'Dairy Month,' the Honey Institute desires to have National Honey Week—October 23 to 30—brought to the attention of chain food store companies." (John A. Logan, Persident, National Association of Food Chains.)

* * *

Requests for honey recipes have come from the Home Economics instructors in every state in the Union, from Bulgaria and from Porto Rico; a number of broadcasting stations have asked the Institute to send recipes gratis to all who request leaflets after the broadcast on honey; a Home Economics Department of one of the largest schools in the country has contributed to the Institute quantity-sized honey recipes which will be available in leaflet form for tea rooms, cafeterias, and hotels.

In November 25 issue of Bakers' Helper more than a full page was devoted to "Holiday Honey Cakes" by W. E. Broeg; the December issue of Bakers' Review had recipes for peppernuts, honey cake, and dark fruit cake all containing honey.

* * *

In 1939 a few of the leading colleges and universities in our country included honey in their experimental cooking classes; these schools, as well as our industry, were benefited by this experience.

* * *

WE TRUST THAT IN 1940 HONEY WILL FIND ITS RIGHTFUL PLACE IN EVERY HOME IN THE UNITED STATES.

———*ABJ*———

Around the Year in the Garden

"Around the Year in the Garden" is the title of a book by F. F. Rockwell which has recently appeared in a revised edition. The plan of the book is indicated on the title. Instead of the usual chapter titles, there is a chapter for each week of the year with suggestions for things to be done at that time.

A wide range of material is included in the book which has a very good index to enable the reader to find anything which he seeks. As an example of the arrangement, the first week in January makes a plan for spring and summer work, the second week discusses tools for the garden and the fourth week the vegetable seeds to be ordered for spring planting. The book contains 350 pages and includes rather complete garden information from hotbeds and greenhouse to fertilization, house plants, perennials, evergreens, and shrubs, as well as insect pests and the making of a lawn. The price of the book is three dollars and it may be had direct from the publishers, The Macmillan Company, 60 Fifth avenue, New York City.

———*ABJ*———

Edible Wild Plants

Many books come to the reviewer's desk which are little more than a rehash of other similar books, but here is one that is different. The author, Oliver Perry Medsger, has entered a field too long overlooked and has given us a volume which is very valuable to everyone who is interested in our native plants. For the first time is offered a handbook which completely covers the edible wild plants of the entire country.

A well printed volume of 325 pages, amply illustrated and bound in cloth, this volume will prove invaluable to every lover of the wild. The edible qualities of many wild plants which were a regular source of food to the Indians are unknown to most people of the present day. Prof. Medsger, of Pennsylvania State College, brings together the result of a study of wild plants extending over thirty years.

The book is published by the Macmillan Company, of New York City, and sells at $3.50.

All Around the Bee Yard

THERE still continues to be considerable interest in the possibility of increased production through the use of dual queens. Nature also uses dual or multiple queens more often than we suspect. For a number of years we have found a plurality of queens in producing colonies which brings up the question of record confusion in stock selection due to the presence of more than one queen in a hive. The population is thus augmented by the brood which results. This in turn, of course, is reflected in the field force.

Probably the chief drawback to the general use of dual queens is lack of familiarity with management and procedure. In the hands of some it results in costs beyond returns, and in others apparent gain. We need to know much about it yet.

—o—

SOME of these minor honey plants that Pellett is digging up may be a source of much profit to the beekeeper. The Cleome, described in this issue, made a remarkable difference in the apiary at the Honey Plant Gardens. Usually, in this part of Iowa, fall brood rearing is not dependable and stops so early that the clusters are badly depleted before cold weather comes, one of the great drawbacks to that country. However, with about six long rows of Cleome, as shown in the picture on page 17, the bees raise brood up to the time of packing and go into winter with heavy clusters of young bees. If a few plants will do this, can't beekeepers change their local situation by the use of some of these important honey and pollen producers even though they are minor sources of nectar?

—o—

THE whole question of stock improvement has been much in the minds of beekeepers lately. This issue and the next carry several articles on it. The selection of stock merely for production on a one season performance has been set aside as wrong. The behavior of queens in the second year of laying is a better indication of stock selection than production alone.

—o—

DR. FARRAR has boldly introduced pictures of queens selected for performance on the basis of external physical characteristics much as the selection of breeding and producing stock is done in the animal husbandry industry. This is the first attempt of its kind and we congratulate Dr. Farrar. It is a step in the right direction.

—o—

IN our beekeeping experience we have had all kinds of losses—disease, fire, flood and recently loss of equipment through a honey house fire. The present plan of a central plant with concentrated storage of valuable equipment brings up the necessity of complete insurance against losses. Some of the costs of a central plant are beyond reason for our business. It might be better if distribution of equipment could be effected by yard storage in some way where there is less danger from fire; and yet the equipment so distributed that a loss of a part will not handicap the producoion of the following year.

—o—

IT is strange how our point of view changes with advancement in the industry. Years ago the loss of bees was considered a calamity. Now, the loss of equipment is much more of a disaster. Bees are cheap (but not always good).

—o—

THIS is the first time in my beekeeping experience, of almost four decades, that honey in carlots has sold for less than the carlot price of sugar. What's the matter?

—o—

IN discussing the price of honey with a good packer friend, he remarks that the public cannot be expected to pay above a certain price for honey and that if a breakdown in distribution, reaching back to the beekeeper with a low carlot price, makes it impossible for the beekeeper to continue he had better seek some other occupation. Well, well!

Wouldn't these same friends who buy our honey be out on a limb then? Without a source of quantity purchase, they would be compelled to get their honey from small L. C. L. lots over a wide territory, and they, in turn would soon be out of business.

THE weather is a muddle. The fondest report of weather specialists is that the weather is the worst of its sort on record, the longest dry spell, the longest cold spell, the highest temperature. What is normal anyway? Is there any such thing? I don't believe the talk about weather cycles. Last year was dry (the driest on record!) in one of our locations, particularly during the fall period, one of the worst fall droughts ever experienced (and that's a fact). The fall crop was almost nothing when it is usually safe to estimate a minimum production of 50 pounds per colony.

On the other hand, in the North, where we also have bees, it was one of the wettest seasons on record. In fact, at the time of honey extraction, the land was so badly covered with water that farmers could not handle crops. Tell we now, please, what is normal.

—o—

THE news that bees normally rear brood in winter probably opens up a new chapter in our understanding of bee behavior. It was previously thought detrimental if bees did have winter brood. It was a sign that, by the reaction to temperature and its effect on the queen, they were forced to begin brood out of season and that after the brood was present high temperatures were maintained to develop it at great expense to the cluster and often with the loss of the colony.

But that such is not the case seems quite certain. We have opened colonies of bees at different periods in the winter to find brood present in all stages. Whenever there is a mild spell of winter, brood rearing starts. Sometimes this brood is matured, sometimes it is not. By introducing queens of a different race from the one dominating the colony at the end of fall brood rearing, it is possible to determine in the spring the extent to which brood has been reared to maturity during the winter period. Oftentimes the replacement of a dark Caucasian stock by an Italian or vice versa is remarkable, frequently the entire population having almost changed in winter.

—o—

IN the mild weather which has prevailed this fall, it is quite certain that brood has been present in many colonies almost until Christmas. We united bees successfully on the 15th of December. Previous temperatures had been mild, ranging from 40 to 50 degrees over a period of three weeks. When the uniting was done, we found brood in all stages, many colonies having as many as three frames with brood, some of it emerging.

G. H. Cale.

It's The Berries

(Continued from page 12)

internal development of the terminal buds determines whether the **next** spring's new shoots will or will not sprout flowers. These terminal buds are extremely interesting. Microscopic cross-sections of these buds made all during the years from the time of their formation immediately following blossom time until about March 1 the **following year** show that practically no activity or development takes place. In other words, these terminal buds lie dormant and unchanging from blossom time one year, all summer, fall and winter and up until about two months before blossom time the next year. Then about March 1 (approximately two months before blossom time) a phenomenon called "differentiation" may take place within the bud. I say "may" because it often does not happen. However, if "differentiation" **does** take place (and no one knows whether it will or not) the terminal buds become internally active for the first time and form embryonic flowers, leaves, and stalk. Then, two months later or about the first of May, these buds **expand** into a stalk (new spring "growth") which has flowers and leaves on it and a new terminal bud for the following year. Notice the word **expand** is used in this description. This is done because **cellular multiplication does not take place after the "differentiation" phenomenon has stopped;** the cells in the bud merely expand, somewhat as a crumpled glove expands when you hold it to your mouth and blow into it.

This expanding of the bud gives rise to about ten inches of new wood or spring growth with its attendant leaves and flowers. Well—the point to all this is that no one as yet knows what causes or prohibits "differentiation" in the terminal buds which is the first factor determining the number of flowers a holly tree will have. If "differentiation" takes place, there will be flowers; if it does not take place there will be no flowers. Now another point—the bud is extremely vulnerable to frost **once "differentiation" starts,** which means that "cold injury" is often encountered in the holly. "Cold injury" may not stop "differentiation" or the subsequent elongation or expanding of the embryonic parts of the new spring growth but it does cause lifeless flowers which cannot produce either pollen grains in the male or berries in the female.

The mechanical distribution of the pollen grains, if flowers are formed, is the second part of our chain of events which must take place before berries are set. Holly pollen is sticky. It is not wind borne and must be carried from the male to the female tree by insects. It is so sticky, in fact, that hand pollination must be resorted to in greenhouses where small potted cuttings are grown for Christmas trade. And incidentally, honeybees might work well in this capacity. Their efficacy in this role will be examined this spring.

The third link in the chain—favorable weather—can well be appreciated by the orchardist who rents bee colonies and the beekeepers supplying them. As these men know, compatible pollenizing varieties must be adjacent and insects, mainly honeybees, must mechanically transfer the pollen. But no amount of available pollen or bees will overcome weather which confines the pollen-distributing bees to their hives. The holly problem in this case is identical with the apple problem.

It would appear then that the holly cutters are first at the mercy of the vagaries of the little understood "differentiation process," which determines the number of flowers that will be presented. But—there's no law against getting all that can be gotten out of whatever flowers are formed which is exactly what the fruit grower does when he rents bees. From this point on, the problem seems to be a matter of adequate insect population to accomplish the pollen distributing job. As cutting of hardwood timber in the holly stands has cut down the number of bee trees and as the areas, at least in Maryland, where the most holly is cut are low in number of apiaries, it may be entirely possible that there **is** a case for the honeybee.

Should honeybees emerge in this new pollenizing role, they will endear themselves to a considerable group of farmers. Holly cutting may not be a big business as big businesses are measured today, but to many farmers on the Eastern Seaboard, it is worth an estimated $500,000 annually and to Maryland farmers alone holly cutting is a $150,000 business.

ABJ

Improved Stock

(Continued from page 14)

the shippers of queens to select from a stock which has a known record of performance. The handicap to a higher attainment of this practice is the attitude of some of the queen shippers who believe they are able to determine by appearance a better mother queen than can be determined by a yard record of performance. It is more difficult for the shipper of package bees to discard his ideas than to conform to the requirements of locality where the stock is to be used.

During the last ten years there has been a definite tendency on the part of producers to try out more than one race of bees in order to determine if better results might be secured under local conditions. It should be evident to any producer that too much importance is placed upon the Italian bee when it is expected that this race should produce equally well under all conditions which exist throughout the United States.

It is wholly illogical to expect honey production to continue on this basis when all other lines of animal and plant production are based upon races and strains best suited to meet local conditions, county, state or regional. It cannot be said, for example, that Caucasian bees are better honey producers under all conditions in Iowa than Italians or Carniolans. It is necessary to determine for the various localities what strain of what race will give the best results under existing conditions. Furthermore, this answer cannot be obtained as a result of one year of experience.

There has been a definite tendency toward more home-reared queens or those queens reared by the producer as a result of selection of stock which performed best under his conditions. This practice may continue to increase if the southern shipper of queens cannot realize the problems which exist for the northern honey producer. There is a chance that it will decrease in so far as their cooperation increases.

Some progress has been made along the line of stock selection for improving honey production conditions in certain localities and for certain types of honey. Because progress has been slow in this direction is no excuse why an effort should not be made to increase the rate of progress. Progress has been made with all other plants and animals and it is only necessary to call to your attention some of the examples of outstanding or striking results, such as the hybrid seed corn, crossbred hogs, everbearing strawberries, the seedless tomato and the Hampshire red poultry. These are impressive enough to incite interest in more rapid progress for stock improvement in bees.

Results have already been obtained in Iowa from selective breeding in the disease resistance program to indicate what can be expected along this line. There are two outstanding examples of selective breeding for other purposes: The 500-pound strain of bees, which is the result of cooperation between George Polhemus, of Ames, and T. W. Burleson, of Waxahachie, Texas; and a bulk comb strain of bees developed by Newman I. Lyle, of Sheldon, Iowa, cooperative with Newton and Lott, queen breeders of Baton Rouge, Louisiana. The results obtained over a period of four years is indicative of the rapid progress which can be made by careful selection on a basis

of record of performance in cooperation with the southern shipper for rearing from these mother queens. It is interesting that selection can make such rapid progress in a problem which seems to have as its solution controlled breeding.

There is also definite improvement made on the part of many honey producers relative to the value of improved stock. They realize that this improved stock cannot be produced on a basis of 35 cent to 50 cent queens. Many producers know full well that they could afford to pay $2.00 per queen if they could get the stock which would produce 500 pounds per colony. The answer is only a simple case of mathematics.

It may be possible to develop some crossbreeding or develop some hybrids to obtain improved strains, either within the races or between races. It is a matter of common knowledge that this principle has been applied to plants and animals and it holds possibilities for improvement of queen stock.

An attempt has been made to create a picture for stock improvement. The existing situation has been reviewed from a historical standpoint; the progress which is taking place has been indicated; and some suggestions have been made for the immediate program. The matter of stock improvement, beyond what has been established, calls for a comprehensive program, perhaps of a national scope. The progress which has been indicated as possible from a practical standpoint should certainly be supplemented by careful research work as is done in connection with all other efforts of plant and animal improvement. Naturally, the individual queen breeder cannot carry very long a program for scientific improvement. The resources which are made available are inadequate for this purpose. One individual recently wrote to me: "We have gone as far as we can in the matter of stock improvement on our present income."

Stock improvement will come as rapidly as the demand for it is created by the producers. In the same proportion, the shippers of queens of poor quality will automatically drop out. Those shippers who are best prepared through training and experience, to produce the high type of stock which is demanded by the northern shipper are the ones who will remain in the picture.

The responsibility for stock improvement rests entirely with the honey producer. The shipper of queens is simply a means to an end. His livelihood depends upon the patronage of northern producers who are satisfied with the quality of the queens he is delivering. As long as the honey producer remains satisfied with indifferent stock, it will be possible for the queen breeder who ships that stock to remain in business.

Meetings and Events

Greetings Ladies of the National Auxiliary:

I thank you for conferring the honor of the presidency on me and I intend to do everything in my power to make 1940 a year of achievement for our organization.

Mrs. T. W. Burleson,
Waxahachie, Texas.

(Sorry we have no picture of the new president. Below is one of the Secretary-Treasurer)

♦

Greetings Ladies of the National Auxiliary:

As the new Secretary and Treasurer I wish to urge you to help me to increase our membership to at least fifty members for each state and to start new auxiliaries in states where none now exists.

Mrs. E. H. Bremer,
Route 1, Box 368,
San Antonio, Texas.

Mrs. E. H. Bremer, new Secretary-Treasurer.

♦

National Auxiliary of the American Honey Industry

The National Auxiliary of the American Honey Industry met at the Native Sons Hall in Sacramento, California, November 9, 1939. The meeting was called to order by the President, Mrs. Irene W. Duax. Minutes of the 1938 meeting were read. Letters from Regional Vice-president Mrs. M. Louise Yates of Hartford, Connecticut, and Secretary-Treasurer, Mrs. Ida E. Becker were received.

The President's address was given before the general assembly. At the Auxiliary breakfast Mrs. Harriett M. Grace, Director of the American Honey Institute, was the principal speaker. She paid tribute to the work of the women and gave glimpses of State Auxiliaries. Interesting talks were by Mrs. Eleanor M. Simer who brought a greeting from Regional Vice-President Mrs. L. Schultz and told of experiences with honey cookery at fairs; and by Mrs. Ethel P. Krebs who spoke on how the California Auxiliary is financed.

After some discussion a Constitution was voted upon and a copy of it will appear in "Honey Cookery News" which will be mailed to each member of the National Auxiliary in February.

The following officers were elected for the coming year: President, Mrs. T. W. Burleson, Waxahachie, Texas; Secretary-Treasurer, Mrs. E. H. Bremer, Route 1, Box 368, San Antonio, Texas; Regional Vice-Presidents: Mrs. M. Louise Yates, 15 Chapman Street, Hartford, Connecticut; Mrs. Robert Foster, Gainesville, Florida; Mrs. Cecelia Blakely, 17379 Greenfield Road, Detroit, Michigan; Mrs. Hazel B. Scherer, 6117 Willow Street, Apt. B, New Orleans, Louisiana; Mrs. H. E. Ingalls, Basin, Wyoming; Mrs. Eva Wixom, Wapata, Washington.

The Secretary wishes to announce that as a result of the membership contest which ended December 1 that the State of Illinois wins the first prize of thirteen dollars, ten dollars of which was donated by Dadant and Sons; the second place goes to California with a prize of seven dollars, five dollars donated by the August Lotz Bee Supply Co., and Texas third with a prize of one dollar.

Mrs. E. H. Bremer, Secretary-Treasurer, Route 1, Box 368, San Antonio, Texas.

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New Officers for Vancouver Island

G. E. Goodman and A. H. Curtis, president and secretary-treasurer respectively, of the Vancouver Island Beekeepers' Association since 1935, were re-elected at the annual meeting recently. Other officers were. Auditor, J. M. McKim; executives, D. H. Heyer, A. T. Hobbs, J. T. Hepburn, J. M. McKim, C. Wilson, A. J. Bird, W. Hipwood and G. Smith.

An instructive film—the latest

government production on beekeeping as practiced in British Columbia —was shown by A. J. Hourston of the Department of Agriculture. This was of particular interest to members, as much of the film was made at their own apiaries.

F. H. Fullerton,
British Columbia.

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Michigan Meeting—January 31 —February 1

The winter meeting of the Michigan Association will be held on the above dates, probably at East Lansing, although we are not informed on that point. Twenty thousand programs, however, of the Michigan College for Farmers Week have been mailed and the annual report for the year will be mailed January 13 including the program of the meeting. Those interested can probably get detailed information from either of these releases.

Speakers on the program will include representatives of the American Bee Journal and Gleanings in Bee Culture, Dr. Dyce of Canada, and G. G. Puett of Georgia. There will be others also.

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Death of John G. Paton

We regret to announce to our readers the death, on December 6, of John G. Paton. Mr. Paton, who was 77 years old, was known to many of our readers as a large handler of honey and maple sugar.

He was the president of the John G. Paton Company, and of the Paton Corporation, and treasurer of Honey Packers Inc., of New York City.

Born in California, Mr. Paton spent his early life in that state, becoming associated with the Johnson Locke Mercantile Co., of San Francisco. In 1904 he went to New York to take charge of the firm's business there. In 1908 he left that organization and formed his own business, dealing mainly in honey and maple sugar products. The business developed rapidly and it was incorporated in 1924.

Mr. Paton was a resident of Norwalk, Connecticut, and is survived by his widow, Mrs. Emma Cornelia Paton, a daughter, Mrs. Richard Baranzelli, of Chicago, and a son, John H. Paton, who is associated with his father's firm.

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C. H. Carpenter

I am sorry to tell you C. H. Carpenter passed away August 5. He always enjoyed the Journal and took it many years. He was a beekeeper sixty-seven years and was eighty-one years old February 19, 1939.

Mrs. C. H. Carpenter,
Vermont.

Macon County (Illinois)

The Macon County beekeepers held their regular monthly meeting at Decatur December 6. Inspector Killion presented fine "bee movies." We also had Willard Smith, president of Piatt County Association, and some of the Piatt County members as guests. Election—president, E. V. Evans, Decatur; vice-president, A. E. Conway, Decatur; secretary-treasurer, Mrs. C. W. Mussulman, Oreana; honey hostess, Mrs. J. C. Evans, Decatur.

Mrs. J. C. Evans,
Secretary-Treasurer.

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Pennsylvania State Beekeepers' Association, Harrisburg, Pennsylvania

Room D, Farm Show Building
January 17 and 18

Wednesday Morning 9:30

Opening remarks by the president —J. S. Fleck, Pittsburgh Pennsylvania.

Invocation—Rev. Luther L. Lengel, Stone Church, Pennsylvania.

Address of Welcome—Hon. John H. Light, Secretary of Agriculture.

Pleasure and Profit from Beekeeping—Richard C. Lightner, Vocational Education Advisor, Gettysburg, Pennsylvania.

Destruction of the Viability and Virulence of Bacillus Larvae by Heating—C. E. Burnside, Associate Apiculturist, Bureau of Entomology, Washington, D. C.

Report of Apiary Inspection— H. B. Kirk, Acting Apiary Inspector, Harrisburg.

Wednesday Afternoon 1:30

Report of Secretary-Treasurer—H. M. Snavely, Carlisle, Pennsylvania.

Election of Officers.

President's Address, Fellowship with Beekeepers—J. S. Fleck.

Serio-Comic Side of Beekeeping—H. C. Deibert, Bedford, Pennsylvania.

Composition and Properties of Honey—E. J. Anderson, Extension Apiarist, State College, Pennsylvania.

Is Bee Culture Profitable?—George J. Abrams, Specialist in Apiculture, University of Maryland, College Park, Maryland.

Business Session.

Wednesday Evening 6:30

Beekeepers' banquet. Turkey dinner, 75 cents. Sixth Street United Brethren Church, Sixth and Seneca Streets, Harrisburg, Pennsylvania.

Beekeepers' Song.

Points to Observe in Preparing Honey and Wax for Exhibition—C. E. Burnside.

Your Southern Neighbor Extends A Hand—George J. Abrams.

Musical Number—Chimes—H. C. Deibert.

Illustrated Pictures—Honey Plants in Pennsylvania—E. J. Anderson.

Thursday Morning 9.30

The Use of Honey in the Kitchen and Menu—Mrs. A. B. McHenry, Stillwater, Pennsylvania.

Review of Papers Presented at the Apicultural Section, American Association for the Advancement of Science —December 1939—C. E. Burnside.

Preparation and Sale of Honey at Roadside Market—Harry W. Beaver, Troy, Pennsylvania.

Some By-Products of Beekeeping —D. C. Babcock, Advertising Manager, A. I. Root Company, Medina, Ohio.

Roll Call of Counties, and Representatives of Supply Companies.

Thursday Afternoon 1:30

Marketing and Advertising Honey —George J. Abrams.

Advantages of the Modified Dadant Hive — Walter Severson, Albany Branch Manager, G. B. Lewis Co., Albany, N. Y.

Topic for Discussion—A. T. Keil, Mars, Pennsylvania.

Discussion and Summary — A Member from Philadelphia County Association.

Reports of Committees.

Adjournment.

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British Columbia Honey Producers

H. C. Legge, of Haney, was elected president of Fraser Valley division of the British Columbia Honey Producers' Association at its annual meeting in the Canadian Legion Hall, New Westminster, B. C.

Other officers elected were: Vice-president, J. Lewis Sanster, New Westminster; secretary-treasurer, W. J. H. Dicks, Haney; representative to central executive, J. W. Winson, Huntingdon, and auditor, A. W. Finlay, Abbotsford.

The following are directors: J. A. Catherwood, Mission City; J. H. Holt, Kennedy; A. A. Paul, New Westminster; Peter Faircloth, Coquitlam; J. P. Hodgson, New Westminster; S. L. Johnson, Chilliwack; J. W. Winson, Huntingdon; E. Harvey, Eburne; Scott Fenton, Ladner; William Poppy, Jr., Langley; W. J. H. Dicks, Haney; and W. McDermott, Pitt Meadows.

The following pioneer members of the beekeeping industry are honorary directors: W. H. Lewis, New Westminster; John R. Street, Hammond; A. W. Finlay, Abbotsford, and W. H. Turnbull, Sullivan.

Members of the exhibition committee elected were: E. Harvey, Eburne; E. R. Freeman, Milner; and W. J. H. Dicks, Haney.

Ald. Sanster, retiring president, referred to the recent display of the association at the Vancouver Exhibition, which he declared was the best that had ever been shown by the members.

He urged increased honey production in British Columbia, not only to take care of the domestic needs but also to produce a surplus

for export. At present, the province imported fifty per cent of its honey consumption.

Reporting for the exhibition committee, E. R. Freeman stressed the value of good exhibits which advertised British Columbia honey and aided sales.

A. W. Finlay reported on the recent international convention of beekeepers held in Sacramento, California. British Columbia was well represented at the convention.

A resolution was passed asking that beekeepers' supplies and equipment be exempt from sales tax on same basis as agricultural supplies.

F. H. Fullerton,
British Columbia.

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Ohio Meeting

The annual election meeting of the Cuyahoga County (Ohio) Beekeepers Association will be held at Shaker Heights City Hall, on Sunday afternoon January 21, at two-thirty.

Copies of Dr. Beck's book "Honey and Health" have been purchased by the association and will be made available to members at this meeting.

J. M. Miller,
Secretary.

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Pledger Reelected Utah President

One of the most enthusiatic conventions in the history of the Utah Association was held November 4 at Salt Lake City. The keynote of the meeting was the attempt to establish means of stopping heavy losses of bees suffered by the application of spray to various crops. Jas. I. Hambleton (Washington) warned that the extinction of beekeeping in the region would make serious inroads in agriculture and fruit raising, and recommended that the association make immediate investigation of the losses experienced by the beekeepers of the state. President Pledger said approximately one third of the bees in the state were threatened with extinction, the loss in Utah County alone last year being more than $48,000. A resolution was adopted to investigate the losses due to poisoning by sprays, dust and bait in pest control. President Pledger estimates his own loss at $15,000.

Arthur G. Pledger was re-named head of the association, A. W. Anderson was chosen again for the secretary.

A committee to help eliminate spray losses in the entire Intermountain region selected by President Pledger are as follows: A. G. Pledger, A. W. Anderson, Dr. W. H. Hendricks, and Tracy R. Welling. The committee will seek to develop

Arthur G. Pledger, President in Utah.

greater public interest in beekeeping and to obtain funds to help determine the cause of losses. Measures to overcome the losses will be developed.

In northern Utah three beekeepers are suing to collect $12,000 damages due to the distribution of poison bait. They are Otto S. Grow, Salt Lake City, manager of the Rocky Mountain Honey Company; Levi S. Haywood, county bee inspector; Asa L. Clark, committeeman of the beekeepers' association. Mr. Grow reports approximately 85 per cent of Davis County's bees have been lost.

Glen Perrins,
Utah.

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Middlesex County (Mass.) Meeting

The January meeting of the Middlesex County Beekeepers Association will be held at 7 P. M. on Saturday, the 27th, at 19 Everett Street, Concord. Mrs. Hildreth will be in charge of a meat loaf supper, featuring local comb honey on honey bread, and honey gingerbread with honey sweetened whipped cream. The speaker will talk on "Comb Pest Control" and "Home Grown Queens."

Arthur M. Southwick,
President.

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Virginia State Meeting January 11

Annual winter meeting of Virginia State Beekeepers Association will be held in Richmond on January eleventh instead of fourth as previously announced. Beekeepers from various sections of the state are planning to attend and President T. C. Asher says out-of-state visitors will be most welcome. There is always time on our programs for out-of-state visitors to get in a few words. Meeting place will be John Marshall Hotel. Program will open promptly at 10:00 A. M. continuing until 4:00 P. M.

A. D. Hiett,
Virginia.

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Manitoba Short Course—January 15 to 26

The Manitoba Short Course at the University of Manitoba will be from January 15 to 26 with the first lecture at 9:00 A. M., January 16. Lecturers—A. V. Mitchener and L. T. Floyd. About fifty lectures and demonstrations will be given covering all practical beekeeping. The following topics are typical—beekeeping literature; beekeeping locations; Canadian beekeeping; how to begin; races of bees; honey production, management during each season; swarm control and increase; queen-rearing; requeening; feeding; package bees; grading honey; uses of honey; chemistry of honey and beeswax; production and uses of beeswax; marketing honey; study of the bee; bee diseases; pollen and nectar plants; factors influencing the honeyflow; pollination.

In addition to Professor Mitchener and Mr. Floyd, approximately eight other speakers from University departments will lecture on subjects of interest to beekeepers. Registration fee $5.00. Board and room obtainable in the Manitoba Union, at the rate of $6.50 per week.

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Michigan Honey Grading Order

The order by the Commissioner of Agriculture regulating the sale of honey in Michigan is now in effect. By this order, the sale of honey of lower grade than U. S. Fancy in retail packages is forbidden and it is required that the package be labeled "white," "amber" or "dark" according to the color of the honey it contains, compared to the Pfund color grader. Comb honey must be marked to show the minimum net weight in each package and if of lower grade than U. S. No. 2, it must be marked "cull." These are the only compulsory provisions of the order. Sales by the beekeeper direct to the consumers do not come under this order. In addition, two services are offered by the state. Any sample of honey sent to the Bureau of Foods and Standards Department of Agriculture, Lansing, will be graded and this certified grade may be used on the label or other advertising. It is the seller's responsibility to sell under this grade only honey as good as the sample submitted. The services of the state grader are also available to inspect honey in sixties (or cases of comb) wherever it is desirable to establish the quality of any lot of honey. Samples will be taken by the in-

spector in person and he will issue a certificate of grade that will describe the actual quality and condition of the honey. The certificate can stand as evidence in court. For this last service a small fee will be charged; the cost of the other work under this order is borne by the state. For further details write to Howard Potter, Honey Inspector, Bureau of Foods and Standards, Lansing.

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California Bee Breeders' Association

The California Bee Breeders' Association held its annual meeting at the University of California, on December 9. Following is a summary of the most important business: 1. A committee was appointed to confer with the director of agriculture to secure support so every package bee and queen producer will be able to place a state apiary inspection certificate on each shipment and to have the certificates based on annual inspection of every colony before the shipping season.

2. No change was thought necessary in the rules and regulations on disease because (a) of the absence of disease in many commercial yards over a period of years; (b) because of the low percentage of disease in the state; and (c) the present regulations require each member to ship only from colonies or apiaries known to be free from disease. Improved methods in packaging bees as used by California shippers insures disease free bees. Yet shippers want to take every precaution to safeguard the buyer. The association appointed a committee to study the bee laws of other states to determine if desirable additions should be made to California laws.

3. The membership dues in the association were changed from $1.00 to four 3-pound packages of bees and queens, or the equivalent in queens or cash. The bees and queens are to be sold by the secretary, T. L. Nicolaysen, Salida, California, and the proceeds used in various ways for the collective benefit of the members. Twenty-eight members signed at once, some offering to donate 10 packages instead of 4.

4. Attention was called to the possibility of securing breeding stock of queens from disease resistant bees for critical testing purposes during the coming season. It will take the responsible queen breeder at least a season to test such stock thoroughly before he will want to stake his reputation on its productivity.

5. A resolution was passed asking the secretary to request the state and federal representatives to review all the trade regulations between states to remove barriers to the free movement of honey. Mr. Hengy called attention to the fact that several states have such regulations as a special sales stamp, or require a stamp to indicate the honey was produced outside of the state, or that the honey is "disease free" or "certified," or that various unstandardized stipulations of grading be mentioned on the label before it can be sold. Such regulations are the principal reasons for large nationally advertised companies not putting up a standard brand of honey or putting honey in their national advertising programs. Other agricultural commodities enjoy national advertising along with the majority of foods and honey could travel in the same company if the beekeepers would see to it that the regulations governing the sale of honey were standardized for all states.

If beekeepers must raise funds to support their inspection, or to advertise honey, the tax should be put on a per colony basis where it belongs and should be left off the retail container. The United States Grading Rules should apply to honey in all states to establish confidence wherever honey is sold. Do away with trade barriers between states and the honey surplus will disappear to the advantage of the entire industry.

6. Several producers were interested in the relative merits of select fall reared queens vs. spring reared queens for the early trade in packages.

J. E. Eckert,
California.

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Rahmlow Presents Illustrated Lecture at Sheboygan

H. J. Rahmlow, secretary of the Wisconsin Horticultural Society and of the Wisconsin Beekeepers' Association, gave an illustrated talk December 6 before the Sheboygan Association at Plymouth. Mr. Rahmlow declared that the percentage of field bees in large colonies is greater than in small, and colonies of 15,000 bees may produce as little as 15 pounds of honey against 100 pounds per colony of 50,000 bees or more. Mr. Rahmlow also advised against the receipt of package bees until pollen is available. Pollen is also necessary for brood rearing in winter months. As an example, a colony of 27,000 bees given only sugar and syrup and no pollen reduced their population to about 12,000 by spring, while another colony of the same size provided with pollen produced 24,000 bees by spring from winter brood. By introducing a queen of an opposite color to the colony under test, it is possible to estimate the bees which result from winter brood rearing.

L. L. Pierron, president, called the members' attention to the importance of the honeybee in pollination. He also commented on the extent of beekeeping in the county. Sheboygan County should have at least 20,000 colonies of bees, whereas it now possesses only 3,000 to 4,000.

H. C. Brunner,
Wisconsin.

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Kansas Short Course, February 8

In connection with Farm & Home Week at the Kansas State College, the beekeepers' short course will take place on February 8 in West Waters Hall, with the following subjects up for discussion: "Apiary Inspection," R. L. Parker; "Bee Behavior and the Increase of Colony Production," J. G. Jessup, Iowa; "The Value in Management of Good Beekeeping equipment," R. L. Parker; "Installation and Care of Package Bees," G. H. Cale; "Production of Chunk Honey," J. C. Dods, Kansas; "Elimination of the Non-producing Colony," J. G. Jessup; "Honey Marketing Problems of 1939 and 1940," G. H. Cale.

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Kentucky Meeting, February 1

The Kentucky Beekeepers' Association will hold its annual convention at Lexington on February 1. This meeting will be in connection with the program of the Farm and Home Week. Dr. W. E. Dunham, of Ohio State University, will assist with the program. A cordial invitation is extended to all beekeepers to attend the session.

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Des Moines Business Meeting

(A brief report of the business session of the Des Moines meeting.)

Officers elected: President, Newman I. Lyle, Sheldon; vice-president, L. G. Gartner, Titonka; secretary-treasurer, F. B. Paddock, Ames.

Directors—John A. Johnson, Pomeroy; L. D. Taylor, Harlan; Geo. P. Schatz, West Union; D. W. Freeland, Clarinda.

Standing Committee — Education, N. I. Lyle; Appropriations, John A. Johnson; E. G. Brown; Inspection, L. G. Gartner, L. D. Taylor; State Fair, Geo. P. Schatz; Membership, D. W. Freeland; Auxiliary, Geo. Polhemus.

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New Jersey Branch Association

On October 17, twenty-eight beekeepers of Passaic County met in the office of County Agent Fawcett at Paterson to consider the formation of a branch of the New Jersey Beekeepers Association. After considering all angles of the project the meeting adjourned to come together again on November 14. This was done and plans completed. Mr. C. D. Vreeland, Little Falls, was chosen chairman and Mr. O. Urbach, 73 No. 11th Street, Paterson, secretary-treasurer.

Regular meetings are to be held the first Tuesday evening of the month, in the County Agent's office in the Court House at Paterson.

Elmer G. Carr.
New Jersey.

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New Jersey Convention—January 25 Moose Hall, Trenton Morning Session

9:30—Report of Secretary-Treasurer, Elmer G. Carr, Pennington.

Reports of Standing Committees: Research—G. Fred Jordy, Flemington. Membership—Paul L. Holcombe, Lambertville. Publicity— Elmer G. Carr, Pennington.

10:15 — "Selecting Out-Apiary Sites"—John Conner, Caldwell.

10:30—"The Work of the Federal Government in the Interest of Beekeeping—James I. Hambleton, Beltsville, Md.

Visit to Farm Show in Armory.

Afternoon Session

1:30—Election of Officers.

1:45—"Publicity in Schools"— C. L. Howk, East Orange.

2:00—"Selling the Crop"—Leslie E. Thran, Irvington.

2:20—"Queen Rearers Problems" —William G. Hayes, Far Hills; Harry N. Conner, Stockton; Albert G. Hann, Glen Gardner.

3:00—"The Importance of Pollen in the Welfare of a Colony"—James I. Hambleton, Beltsville, Md.

Visit to Farm show in Armory.

Beekeepers' Dinner . Thursday, January 25, Y. W. C. A. Auditorium, 140 East Hanover Street

6:30—Dinner. (Details to be announced at the morning session.)

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January Hearings on Proposed Freight Rate

A reduction in rate from third class to fourth class is proposed on honey in less carlot shipments, granulated or strained, in kits, pails or metal cans in crates; in glass or metal cans in barrels or boxes. No change is proposed on carlot shipments. As this is a shipper's proposal it must be adequately supported by shippers to receive serious consideration.

Another proposal made by carriers suggests a change in rates on mixtures of honey with cane or corn syrup proposing a slight increase in official territory, a reduction from fifth to fourth class in southern and no change in western territory.

These proposals are docketed with the consolidated classification committee for hearing in January. Those interested may address the nearest office for further information as follows: In the East, Office 401, 143 Liberty St., New York City; in the South at Office 1015, 101 Marietta St., Atlanta, Ga., and in the West Office 202, Chicago Union Station, Chicago, Ill.

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Delaware Meeting

The Delaware State Beekeepers Association will hold its third annual meeting at the Grange Hall in Georgetown, Delaware, on January 6. The meeting will be called to order at 10:30 in the morning. Mr. Edwin J. Anderson, Extension Apiculturist of Pennsylvania, will be the principal speaker on the program. The subjects of "Transferring Bees to Modern Hives" and "Swarm Control" will be discussed. The Delaware Crop Improvement Association meets in Georgetown at the same time and the beekeepers plan to have a honey exhibit along with the exhibits of the Crop Improvement Association.

John M. Amos,
Secretary.

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Indiana Beekeepers' Conference

The annual Beekeepers' Conference will be held at Purdue University, Lafayette, Indiana, during Agricultural Conference Week, January 9 to 11.

J. J. Davis,
Chief in Entomology.

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31st Annual Meeting Maryland Association, January 13, Y. W. C. A., Hagerstown Afternoon Session

2:15—Meeting called to order. Secretary-treasurer's report.

2:30—President's annual address —Harold L. Kelly, Forest Glen, Md.

3:00—Annual report of state apiarist—George J. Abrams, Univ. of Md., College Park, Md.

3:45—Transaction of business.

4:15—Address—George P. Walton, Associate Chemist, Bur. of Ag. Chemistry, U. S. D. A.

4:45—Adjournment.

Judging of honey and wax entries in Third annual honey sweepstakes—Dr. E. N. Cory, Dr. C. E. Burnside, and Mr. W. J. Nolan, Judges.

Inspection of exhibits—Historical Hive Exhibit (45 scale models—kindness U. S. Bee Culture Laboratory.) Hall of Horrors (????) John Lindner Commercial Display. G. B. Lewis Commercial Display. Educational Honey Display.

Beekeepers' Dinner—Patterson House—6.30 P. M.—75c Plate

Evening Session

8:00—Meeting called to order.

"The Position of the Honeybee in Relation to our General Welfare"—James I. Hambleton, Director, U. S. Bee Culture Laboratory

8:30 — Formal Appointments of District Apiary Inspectors—Dr. E. N. Cory, State Entomologist, Univ. of Md., College Park, Md.

8:45—"Why is Honey Selling at Its Present Levels?"—Harold J. Clay, Marketing Service, U. S. D. A.

9:15—"The Disease Problem in Modern Bee Culture"—Dr. C. E. Burnside, U. S. D. A.

9:45—Announcement of winners in sweepstakes and presentation of awards.

10:00—Election of officers.

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New Bureau In Uruguay

The Executive Power of Uruguay by Decree dated October 4, 1939, has created a Bee Culture Bureau within the Department of Agriculture and Pastoral Production.

The duties of the new bureau are to promote the progress of bee culture by lectures, publications, and any other feasible means, to compile statistics on production and sale of honey, to sell queen bees, to import bees, etc.

According to the recently published "Censo Agropecuario-Ano 1937" the number of hives existing in 1937 was 50,226, producing 390,873 kilos of honey, compared with 53,409 hives producing 332,480 kilos of honey in the year of the last previous census, 1930.

American Consulate General,
Montevideo.

(From "Foodstuffs Round the World"—November 24.)

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Western New York

The Western New York Honey Producers held their annual fall meeting November 18 in Batavia. The menace of the much advertised Cuban honey and house-to-house peddling were discussed. Other discussion centered on possible causes for variation in shades of color in honeys.

G. E. Norris,
Secretary.

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Ohio Short Course

The Ohio beekeepers' short course in bee culture is being scheduled January 29, 30, and 31 of Farmers' Week at the Ohio State University. A cordial invitation is extended to all beekeepers to attend these educational sessions.

W. E. Dunham, Extension
Specialist in Bee Culture.

Crop and Market Report

Compiled by M. G. Dadant

For our Crop and Market report for January, we asked reporters to answer the following questions:

1. How much of crop left in producers' hands?
2. Is honey moving rapidly?
3. Are retail prices satisfactory? Advancing?
4. Carlot and jobbing prices: are they better?
5. What are present prices on carlot white? Ton white? 10 Lb. Retail? 5 Lb. Retail?

Crop Left

The crop left in the hands of producers is quite a little less than it was a year ago at this time and is about at a normal proportion, ranging from practically all sold to as much as 50 per cent left in the hands of producers.

There is perhaps a little better cleanup in the eastern sections and particularly in the Atlantic coast than in the Central West and Rocky Mountain region. Texas seems to be extremely well cleaned up on honey, partly owing to the short crop and partly to the high demand and some good advertising.

Honey Moving

In New England and New York, as well as Atlantic coast sections, honey is moving very nicely and in some instances rapidly. In all the balance of the country, however, except perhaps Texas, honey movements are reported as being moderate to low with a decrease during the holiday season which is not unusual. We may say, therefore, that the movement of honey is about normal.

Retail Prices

As a general rule, retail prices are ranging about the same as a month ago with some tendencies perhaps to cut prices in certain places and in no cases are there reported any advances in sales of honey. In most instances, prices are not considered as any more than satisfactory except in the extreme eastern and southeastern sections where cut prices do not seem to have predominated.

As an instance, as regards five pound pail prices, we had an advertisement from a subscriber in Wisconsin which gave prices from chain stores on five pound pails at 35 cents each. At such a price, can there be any wonder that the packer cannot pay better prices to the producer for his honey?

Are Carload Prices Better?

Yes, in some instances carload offers are better than they were a month ago but more generally we believe there has been a slight tendency towards a weakening of prices offered and a part of this we believe has been caused by some of the cut price rates on five pound pails of honey. As one subscriber wrote in, the five pound pail is a "headache." Just why they should have picked on this container for reduction is questionable unless it is barely possible that some larger beekeepers have decided to dispose of their honey in five pound pails rather than accept the carlot price and have put the price down at a ruinous rate where it brought them perhaps at the very best 5 cents per pound in bulk. This has had a very discouraging influence on the part of packers who have had to compete and after all packers do handle a large part of our surplus honey and should have some measure of protection.

Prices

The best price of carloads that we learn of is 5½ cents f. o. b. producer's shipping point, and the lowest 4 cents from an Idaho reporter, with cans returned.

The general tendency on the part of producers is to hold their honey for a price of somewhere near 5 cents f. o. b. producer's station which we still believe is not out of the proper range.

One California Commission firm reports that their survey shows a reduction in volume of production this year of some twenty-five million pounds under a year ago and the Canadian production shows a drop of nearly ten million pound under that of 1938.

We are inclined to think personally that our own production in the United States would run more nearly forty million pounds below last year which would far more than make up for the carryover from 1938 to 1939.

All in all, therefore, we see no reason why the present slump should be anything but temporary and that when the holiday season is over and normal conditions again prevail, the honey sales should start out on a satisfactory basis and gradually clear up the volume of honey still left on hand.

In other words, instead of having a market which is gradually depressing during the late winter and spring months, we are firmly convinced that there will be a gradual increase in the demand at least, if not in price, as spring approaches during the 1940 season.

Practically everywhere we have reports of poor conditions for honey plants with extremely dry weather and even poor conditions with bees with a long warm fall which has induced brood rearing and used up large quantities of stores.

The Canadian provinces seem to be in an exceptionally desirable position this year from the fact that they are able to export to the British Isles whereas no exportations have been made out of the United States.

As a consequence, there has been a gradual stiffening in price in the Canadian provinces and what they term very satisfactory prices are now being obtained in view of the general low price conditions of honey in the United States.

Summary

All in all condition of bees and of honey plants is far below normal owing to the extremely dry and open fall. We would anticipate rather heavy losses unless the beekeepers are extremely careful in getting to their bees early in the spring and giving additional feeding because undoubtedly the heavy brood rearing is going to call for heavy consumption of stores.

We do not look for any more than a normal carryover of honey with satisfactory sale during the early 1940 season and perhaps a possibility that honey prices will gradually stiffen although too late to make for a great deal of stiffening in the retail prices.

The BEEKEEPER'S EXCHANGE

Copy for this department must reach us not later than the fifteenth of each month preceding date of issue. If intended for classified department, it should be so stated when advertisement is sent.

Rates of advertising in this classified department are seven cents per word, including name and address. Minimum ad, ten words.

As a measure of precaution to our readers, we require reference of all new advertisers. To save time, please send the name of your bank and other references with your copy.

Advertisers offering used equipment or bees on combs must guarantee them free from disease, or state exact condition, or furnish certificate of inspection from authorized inspector. Conditions should be stated to insure that buyer is fully informed.

BEES AND QUEENS

MY CARNIOLAN QUEENS and PACKAGE BEES satisfy better. Gentler bees, whiter combs, more honey. Booking orders now. EPHARDT'S HONEY FARMS, LETTSLULING, LA.

CARNIOLAN, CAUCASIAN package bees, queens. 1940 delivery. Tillery Brothers, Greenville, Alabama, Rt. 4, Box 132.

CAUCASIAN PACKAGE BEES. Booking orders now for 1940 delivery. P. B. Skinner Bee Co., Greenville, Ala.

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GOLDEN QUEENS, excellent quality. They please others, will please you. Try 1940 model. Personally reared. O. E. Brown, Rt. 1, Asheboro, N. C.

NEW YEAR will be profitable with scientifically selected stock. "SELECTBRED" Bees. WEST-ACRES APIARIES, DAVIS, CALIFORNIA.

JENSEN'S PACKAGE BEES AND QUEENS. Service unexcelled. Lowest express charges. A postal brings our 1940 price list etc. Let us quote you on your requirements whether large or small. 26 years' queen breeding experience behind our "Magnolia State" strain Italians. Won first prize Minnesota State Fair in 1939. Satisfaction assured. Our files contain many expressions of satisfaction, unsolicited. Jensen's Apiaries, Macon, Mississippi.

NOW BOOKING ORDERS for 2 and 3 frame nuclei, also queens. E. F. Parker, Rt. 1, St. Petersburg, Florida.

PACKAGE BEES and BEEKEEPERS SUPPLIES. "A quality higher than prices." Also honey. Get your name on our mailing list. We will serve you well. A. H. Harris, Rt. No. 5, Jackson, Tennessee.

ITALIAN PACKAGE BEES AND QUEENS. Marshall K. Smith, Mount Vernon, Ind.

GIDDINGS' QUEEN APIARIES. Specialized production of best of queen bees—Italian, Caucasian, Carniolan, Cyprian, and Austrian. Also pure desert honey. Ennis M. Gidding, Riverside Co., Blythe, California.

PACKAGES WITH QUEEN INTRODUCED prevent supersedure and loss of queens. Free folder tells their advantages over others and how we do it. A. O. Smith, Mount Vernon, Indiana.

I SHIP PACKAGES, BEES from Florida to Maine, guaranteed safe delivery. I can handle your early orders. Now booking orders for 1940 delivery. D. P. Green, Rt. 2, Deland, Florida.

HONEY FOR SALE

HONEY FOR SALE—We buy and sell all kinds, carloads and less. The John G. Paton Company Inc. 630 Fifth Avenue, New York, N. Y.

'39 CROP CLOVER and BUCKWHEAT honey. Scribner Hill Apiaries, Ionia, N. Y.

NEW CROP white extracted in new sixties. Case or carload. Harry C. Kirk, Armstrong, Iowa.

FINEST CLOVER EXTRACTED 7c: light amber 6c; last year's white 6c. N. B. Querin, Bellevue, Ohio.

NEW CROP CLOVER, also light amber in new sixties. Fine quality. Ton lots. Sample 10c. Write for prices. Meyer Toom, Rt. 4. Knoxville, Iowa.

FOR SALE—Fancy, well ripened, white sweet clover honey in 60-lb. cans, by the case or carload. Extra good quality. Dadant & Sons, Hamilton, Ill.

GOOD CLOVER EXTRACTED in 60's 6c; light amber 5½c; dark 5c. No. 1 weight comb, $3 per case; culls, $2.25 per case of 24 sections. H. G. Quirin, Bellevue, Ohio.

FINEST CLOVER EXTRACTED. Case or Carload. New 60's. Roediger Apiaries, Kettlersville, Ohio.

'39 CROP WHITE CLOVER extracted honey. Case or ton lots. L. W. Mundhenke, East Dubuque, Illinois.

CHOICE EXTRACTED CLOVER HONEY in 60's. R. C. Bish, Successor to Moore Apiaries, Tiffin, Ohio.

FANCY TUPELO HONEY for sale, barrels and 60's. Marks Tupelo Honey Co., Apalachicola, Florida.

COMPLETE LINE comb and bottled honey. Pure clover. Also packed in 5's and 60's. Central Ohio Apiaries, Inc., Millersport, Ohio.

FOR SALE—Fancy Iowa white clover extracted honey. Kalona Honey Co., Kalona, Iowa.

HONEY PACKERS—Write us for prices on carload lots of California and Western Honeys. We stock all varieties. HAMILTON & COMPANY, 1360 Produce Street, Los Angeles, California.

ORANGE, Palmetto and Mangrove honey in new sixties. Peter W. Sowinski, Fort Pierce, Florida.

FOR SALE—Northern white extracted and comb honey.
M. W. Cousineau, Moorhead, Minn.

WE BUY AND SELL ALL KINDS COMB AND EXTRACTED, CARLOADS AND LESS. H. BLITZ, P. O. BOX 8452, PHILADELPHIA, PA.

HONEY FOR SALE—All kinds, any quantity. H. & S. Honey and Wax Company, Inc., 265-267 Greenwich Street, New York.

CHOICE Michigan Clover Honey. New 60's. David Running, Filion, Michigan

FOR SALE—Honey by the carload. Imperial Valley Beekeepers Association, 47 Heber Avenue, Calexico, California.

HONEY FOR SALE—Any quantity, all varieties. B-Z-B Honey Company, Alhambra, California.

HONEY AND BEESWAX WANTED

CASH FOR YOUR WAX the day received. Write for quotations and shipping tags. Walter Kelley Co., Paducah, Kentucky.

ALL GRADES extracted honey wanted. Bee supplies and honey containers for sale. Prairie View Apiaries, 12213 12th Street, Detroit, Michigan.

WANTED—Large quantities of chunk comb in shallow frames; also section honey. Central Ohio Apiaries, Inc., Millersport, Ohio.

WANTED—Carlots honey; also beeswax, any quantity. Mail samples, state quantity and price. Bryant & Cookinham, Inc., Los Angeles, California.

FOR SALE

FOR SALE—40 colonies of bees state inspected. Jackson Wesley, LeRoy, Illinois.

IN CALIFORNIA—long established, profitable, honey-bottling business. Retiring Would trade for bees. Pay cash difference. Box X, American Bee Journal.

FOR SALE—About 150 hives of Italian bees, averaging four supers high and suitable for splitting into comb packages or shaking for package bees. Have plenty of stores and are in good condition. Never have had any disease. Mansford Plantation, Tallulah, Louisiana.

FOR SALE—90 colonies of bees in 10 frame standard hives. Walter I. Wright, Putnam, Illinois.

BEES and HONEY BUSINESS in Iowa, FOR SALE. Includes honey house, residence, 200 colonies bees, 600 packages in spring, two trucks, extracting equipment, large retail trade. Consider trade Iowa farm or half cash to responsible party. Price $7,000.00 Write Bees, care American Bee Journal.

OPPORTUITY FOR YOUNG BEEKEEPER —300 colonies bees. Established honey outlet to 200 retail stores. Excellent brand name and lithographed labels. Located in southern California. Easy terms. Write Allen, care 2918 Lincoln Ave., San Diego, California.

400 10-frame colonies, extracting supers. Excellent condition. No disease. Ernest Sires, Stanfield, Oregon.

HELP WANTED

SOBER YOUNG MAN of wide beekeeping experience wants position as manager or queen-breeder for big concern. Or would consider good outfit to operate on shares. Write B. D., care American Bee Journal.

WANTED—Help for extracted honey production. State experience and wages wanted, with room and board furnished. Schultz Honey Farms, Ripon, Wisconsin.

HELP WANTED—Experienced man in large bee business. Manager capable of taking charge, preferably with wife to do cooking for the help. Good opportunity for suitable help. M. E. Ballard, Roxbury, N. Y.

WANTED—Experienced queen breeder. Must be able to manage large queen mating yards. Give references, wages desired, age and full particulars. J. E. Wing, Cottonwood, Calif.

WANTED

BEES and equipment. T. Bourlard, 126 Edmond St., East Peoria, Illinois.

USED QUEEN EXCLUDERS. State price. Ernest Sires, Stanfield, Oregon.

SUPPLIES

WRITE FOR CATALOGUE. Quality bee supplies at factory store prices. Prompt shipment. Satisfaction guaranteed. The Hubbard Apiaries, Onsted, Michigan.

PINARD nailless queen cage. Agents: Diamond Match Company, Los Angeles and Chico, California; Weaver Apiaries, Navasota, Texas. Samples, A. B. Pinard, 810 Auzerais Avenue, San Jose, California.

WAX WORKED into high grade medium brood foundation 15c pound, 100 pounds $11.00; thin super 22c. Fred Peterson, Alden, Iowa.

LARGE CASH SAVINGS can be made by letting us work your wax into either wired or plain foundation. Send us a list of your needs so we can quote our very lowest, early order discount, prices. WALTER T. KELLEY CO., PADUCAH, KENTUCKY.

The Postscript

From T. J. Mannex, whose address is Box 20, Waihou, Thames Valley, New Zealand, comes an interesting letter telling about the early spring where he lives on the other side of the world. His letter was written in October just when our summer was over, and by the time this appears in print summer will be well along with them. He tells of a native shrub called, "Kawhai" which grows about fifteen feet high and is one of their best honey plants. He offers to send a packet of seed to any of our readers who will send him 20 cents to cover postage and handling. Perhaps it may prove to be of real value in some part of our country.

♦

It is very evident that soy beans are nowhere important as a source of surplus honey but at times some honey is secured. Harold L. Kelly, of Forest Glen, Maryland, writes that his bees within reach of about fifty acres of soy beans worked the blossoms freely, gathering more than their immediate needs but not storing surplus. The honey was amber in color, slightly on the dark side but of mild flavor. While not important the beans do provide a light honeyflow in his locality at a time when there has usually been a dearth. Perhaps some varieties may yield more nectar than others. We will welcome further reports.

♦

Jay Smith, of Ft. Myers, Florida, regards coral vine as the only plant which would pay to cultivate for honey alone. He says that it begins to bloom in March and continues until Thanksgiving. The bees work it with a frenzy from early morning until dark. Even when it rains they continue to work. He has a hundred plants and a gallon of seed which he is planting in the hope of having a good sized area available for his bees.

Coral vine, **(Antignon leptopus)** is common to the South where it has been introduced from Mexico, its native country. It is known also as pinkvine, corallita and Rosa de Montana.

♦

Since a number of our readers had small plots of the new Melana sweet clover under test the past season, we would like to get reports from as many of them as possible. This plant looks very promising but for one thing in our test plots. It is not sufficiently vigorous in its habits of growth to compete with a heavy infestation of weeds, when left to itself, as most forage crops of this kind must be under field conditions.

♦

Prof. J. Russell Smith, of Swarthmore, Pennsylvania, is looking for the most productive honey locust tree for the purpose of developing a new forage crop. The sugary pulp in the long pods surrounding the seeds provides good stock food and Prof. Smith sees a possibility of commercial development through selection and breeding from trees having the richest pods. He offers cash prizes for the best to be found but is not interested in any pods less than six inches long, one inch wide and ⅛ inch thick. Beekeepers will watch with interest the progress of this work since large plantings of honey locust would provide good bee pasture. Honey locust is often confused with black locust which is of no value for the purpose that Prof. Smith has in mind.

♦

A reader of this page has suggested that we make a comparative study of the goldenrods in our honey plant test plots to see which ones are of most value to the bees. Already we have acted on his suggestion by making a start in that direction. There are about eighty different species and so far we have secured four. We have learned where several more can be secured but many of them will be difficult to get since they are not cultivated. We hope to make the collection as complete as possible but it is likely to take some time. Eighty different kinds of goldenrod growing together would be very interesting.

♦

An interesting communication from Steve Gerlofs, in Holland, tells something of the difficulties of a neutral nation in the war zone. A small country which lies between two larger countries at war is in an unpleasant situation to say the least. His American magazines reach him about three weeks later than usual because of war embargoes, and some supplies are difficult to secure. Sugar is restricted and supplies of feed or poultry have been curtailed until he is able to secure only about 65% of his normal needs. To save gasoline, no Sunday driving of automobiles is permitted. We certainly hope that our friends in Holland will escape actual combat and not suffer the fate of Poland and Finland.

♦

Harvey B. Lovell, of the University of Louisville, Kentucky, has spent much time with his father, the late John H. Lovell, in the study of the pollination of flowers and the flower visiting habits of bees. Let us hope that this work will go on since there is still so much to be learned concerning flower fertilization.

♦

Here is something new: Mr. C. E. Ghehiere of Williams, Montana, reports that on three occasions he has secured surplus honey from Russian thistle. The first was in 1918. The second time was in 1923 when an average of about fifty pounds was secured from this source. The third time was in 1939 when a small amount was secured. In each case a frost killed sweet clover and alfalfa in September with mild temperatures later on.

♦

The December issue of Western Canada Beekeeper has an interesting story of the development of the honey producing industry in Manitoba, written by L. T. Floyd. It is hard to realize that at the time of Floyd's arrival in the province in 1921 sweet clover was but little grown and there were few bees in the region. One apiary of 65 colonies was the largest. The following year it was my good fortune to visit Floyd and to travel with him over the province. It would have been hard then to anticipate the extent of beekeeping to be found there now. Much of the growth is due to the activity of this same man, L. T. Floyd, who is one of the most active extension specialists in the field.

♦

My attention was first called to the Plume poppy, **(Macleaya cordata)** by A. J. Bissinger, of Prescott, Iowa. It is a vigorous perennial of the poppy family growing to the height of a tall man. The numerous flowers on long terminal panicles are very attractive to the bees. The plant is a rich feeeder and needs plenty of space and good soil. Thanks Mr. Bissinger, we will try to include it in our test garden next season.

♦

A number of inquiries have come to us for a source of seed of the New Melana sweet clover. The plant is new and has not yet come into common use. It originated at the University at Saskatoon, Saskatchewan. A letter just received from W. J. White states that seed has been distributed in very small lots and that he has been unable to locate anyone with any seed for sale. I think that Mr. White can perhaps send small samples of seed to a few persons for further trial.

FRANK C. PELLETT.